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CURRENT PREVALENCE OF COMMUNICABLE DISEASES IN THE UNITED STATES ¹

September 7-October 4, 1930

The prevalence of certain important communicable diseases, as indicated by weekly telegraphic reports from State health departments to the Public Health Service, is summarized below. The underlying statistical data are published weekly in the PUBLIC HEALTH REPORTS under the section entitled "Prevalence of disease."

Poliomyelitis.—The reported poliomyelitis incidence has risen, since the last 4-week period, from 1,182 to 1,837 cases, an increase considerably larger than the average seasonal rise. Last year the rise during the corresponding periods was from 309 to 358.

The status and recent tendency in the various geographic sections are shown in the following table:

Region	Number of cases reported in 1929, 4 weeks ended—		Number of cases reported in 1930, 4 weeks ended—		Ratio of current incidence to incidence of corresponding 4 weeks of last year, period ended—	
	Sept. 7	Oct. 5	Sept. 6	Oct. 4	Sept. 6, 1930	Oct. 4, 1930
North Atlantic ¹	155	190	320	449	2.1	2.4
South Atlantic.....	32	38	35	38	1.1	1.0
East North Central.....	53	61	118	284	2.2	4.7
West North Central.....	16	30	358	659	22.4	22.0
South Central ²	20	10	97	83	4.9	8.3
Mountain and Pacific.....	33	29	254	324	7.6	11.2
All regions.....	309	358	1,182	1,837	3.8	5.1

¹ Includes the New England and Middle Atlantic group. The States included are shown in the tabular section of PUBLIC HEALTH REPORTS.

² Includes the East and West South Central groups.

During the last eight weeks the incidence in the West North Central group (mainly the States west of the Great Lakes group) has been about 22 times the incidence of the corresponding period of last year. In the Mountain and Pacific groups the incidence has risen in successive periods from 7.6 to 11.2 times the incidence of the corresponding period of last year. In the remaining groups the comparison with last year is not so unfavorable, but in all groups except the South

¹ From the Office of Statistical Investigations, U. S. Public Health Service. The numbers of States included for the various diseases are as follows: Typhoid fever, 41; poliomyelitis, 35; meningococcus meningitis, 42; smallpox, 42; measles, 38; diphtheria, 42; scarlet fever, 41; influenza, 31.

Atlantic it has in most places grown worse during the last 4-week period.

In the South Atlantic group alone has the incidence been little different from that of last year. It is interesting to note that in the recent meningitis outbreak, also, the epidemic reached the South Atlantic group of States a full year after the more western States had been attacked.

Meningococcus meningitis.—During the current 4-week period there were reported 256 cases of meningococcus meningitis, as compared with 379 during the corresponding period of last year and 302 the year before. The current incidence now occupies a median position in relation to the experience of recent years.

During the preceding period of this year there were 332 cases, representing a ratio to the corresponding period of last year of 89 per cent. This ratio to the corresponding period of last year has now declined to 67 per cent—an encouraging sign. The decline has been slower in the Southern States than elsewhere, as apparently the meningitis wave was about a year later there than in the West and North.

Diphtheria.—The incidence continues at a very favorable level, 3,578 cases having been reported in comparison with 5,041 during the corresponding period of last year.

Influenza.—With influenza also the situation seems favorable. Reported cases numbered 535, against 758 for the same period last year.

Measles.—The incidence of measles has been relatively low, the reported cases numbering 1,818, as against 2,188 for the corresponding period of last year.

Scarlet fever.—This disease continues to maintain a low record in relation to recent years. Reported cases were 4,516, as against 5,378 for the similar period last year.

Smallpox.—The incidence of smallpox has returned to the lowest level, in relation to the season, reached during the last four years. The reported cases numbered 437, as compared with 723 cases during the corresponding period last year.

Typhoid fever.—The reported incidence of typhoid fever, 3,147 cases, represents a middle ground in relation to the incidence of recent years. During the corresponding period of last year, 2,552 cases were reported. The current incidence, therefore, is about 23 per cent in excess of that of last year. This is in contrast with the low record of all time, established last spring.

Mortality, all causes.—The mean mortality in a group of large cities during the 4-week period was 10.2 per 1,000 population, according to the Weekly Health Index of the Bureau of the Census. Last year the rate during the corresponding period was 10.7.

SICKNESS AMONG INDUSTRIAL EMPLOYEES IN THE FIRST HALF OF 1930¹

The frequency of claims for benefits on account of sickness and nonindustrial injuries causing disability for eight calendar days or longer among approximately 135,000 male industrial employees decreased 34 per cent in the first quarter, and 8 per cent in the second quarter of 1930 as compared with the corresponding periods of 1929. The employees of 16 large establishments are included in the data for the first quarter, and of 15 establishments in the second quarter. Results for the specified quarter of the present year are compared with the corresponding period of a year ago for those establishments only which reported in both years so that as nearly the same population as is possible to obtain was under observation in the two periods.

The favorable health record for the first quarter of 1930 was due in large measure to a decreased incidence of respiratory diseases, especially influenza, which occurred at epidemic frequency in the early part of 1929. In addition to pronounced decreases in the incidence of influenza and pneumonia, the rate of disability from respiratory tuberculosis also declined substantially in the group under consideration.

Nonrespiratory diseases as a whole decreased 6 per cent, and nonindustrial injuries 9 per cent in the first quarter of 1930 as compared with the first three months of 1929.

In the second quarter of 1930 the incidence rate of a majority of the disease groups was lower than in the second quarter of 1929 among the employees covered in the record. The respiratory rate was down 11 per cent, due to improvement in the rates for bronchitis, tonsillitis, and pneumonia, while the nonrespiratory diseases as a whole declined 7 per cent. In this group the largest percentage decline was indicated for diseases of the nervous system.

That disability was relatively infrequent during the first six months of this year is indicated also by comparison with the average rate in 1928 for 13 of the 16 establishments included in the data for 1930. This year's first quarter morbidity rate was down 13 per cent, and the second quarter rate was 16 per cent lower than in the corresponding period of 1928.

With but one exception the establishments sending sickness reports are located north of the Ohio and Potomac rivers and east of the Mississippi. On account of small numbers, the sickness rates for female employees are not presented.

¹ From the Office of Industrial Hygiene and Sanitation in cooperation with the Office of Statistical Investigations, United States Public Health Service.

TABLE 1.—Frequency of disability lasting 8 consecutive days or longer in specified months of 1930 as compared with the corresponding months of 1929 among the male employees of several industrial establishments which reported their cases to the Public Health Service during both years, and a comparison with the rates for 13 of these establishments in 1928

Diseases causing disability (numbers in parentheses are disease title numbers from the International List of the Causes of Death, 3d revision, Paris, 1920)	Annual number of disabilities per 1,000 men in—			Per cent increase or decrease in rate for 1930 as compared with 1929
	1930	1929	1928 ¹	
FIRST QUARTER (JANUARY, FEBRUARY, MARCH), SIXTEEN ESTABLISHMENTS				
Sickness and nonindustrial injuries.....	115.8	175.3	133.8	-34
Nonindustrial injuries.....	10.7	11.7	10.9	-9
Sickness.....	105.1	163.6	122.9	-36
Respiratory diseases.....	49.8	105.0	60.3	-53
Influenza and grippe (11).....	23.0	78.1	32.9	-71
Bronchitis, acute and chronic (99).....	7.1	6.9	7.7	+3
Pneumonia, all forms (100, 101).....	4.7	5.0	4.3	-6
Diseases of the pharynx and tonsils (109).....	8.3	8.1	7.1	+2
Tuberculosis of the respiratory system (31).....	.4	1.1	(?)	-64
Other respiratory diseases (97, 98, 102-107).....	6.3	5.8	8.3	+9
Nonrespiratory diseases.....	55.3	58.6	62.6	-6
Diseases of the stomach, diarrhea and enteritis (111, 112, 114).....	6.0	5.5	6.6	+9
Other diseases of the digestive system (108, 110, 115-127).....	9.6	10.2	8.4	-6
Diseases of the circulatory and genito-urinary systems and annexa (87-96, 128-136).....	8.8	8.4	9.9	+5
Diseases of the nervous system (70-84).....	5.2	5.6	5.8	-7
Diseases of the skin (151-154).....	3.8	4.6	4.8	-17
Epidemic and endemic diseases except influenza (1-10, 12-25).....	3.8	5.7	6.0	-33
Rheumatism, acute and chronic (51, 52).....	6.4	6.4	7.0	0
Lumbago and other diseases of the organs of locomotion (158).....	4.0	4.4	4.7	-9
Ill-defined and unknown causes (205).....	2.5	1.9	2.7	+32
All other diseases (26-30, 32-37, 41-50, 53-69, 85, 86, 155-157, 159, 164).....	5.2	5.9	6.7	-12
Average number of males covered in the record.....	137, 268	136, 590	99, 982	-----
SECOND QUARTER (APRIL, MAY, JUNE), FIFTEEN ESTABLISHMENTS				
Sickness and nonindustrial injuries.....	98.0	106.2	116.6	-8
Nonindustrial injuries.....	11.2	11.3	10.5	-1
Sickness.....	86.8	94.9	106.1	-9
Respiratory diseases.....	32.9	36.9	48.7	-11
Influenza and grippe (11).....	13.1	13.1	27.3	0
Bronchitis, acute and chronic (99).....	4.2	5.1	5.5	-18
Pneumonia, all forms (100, 101).....	2.3	3.3	3.8	-30
Diseases of the pharynx and tonsils (109).....	6.9	8.7	5.7	-21
Tuberculosis of the respiratory system (31).....	1.7	1.3	(?)	+31
Other respiratory diseases (97, 98, 102-107).....	4.7	5.4	6.4	-13
Nonrespiratory diseases.....	53.9	58.0	57.4	-7
Diseases of the stomach, diarrhea and enteritis (111, 112, 114).....	6.2	6.5	6.5	-5
Other diseases of the digestive system (108, 110, 115-127).....	9.3	10.3	9.2	-10
Diseases of the circulatory and genito-urinary systems and annexa (87-96, 128-136).....	8.3	9.0	8.0	-8
Diseases of the nervous system (70-84).....	4.2	5.2	5.3	-19
Diseases of the skin (151-154).....	4.1	4.9	4.8	-16
Epidemic and endemic diseases except influenza (1-10, 12-25).....	4.3	3.4	4.8	+26
Rheumatism, acute and chronic (51, 52).....	6.3	6.5	7.2	-3
Lumbago and other diseases of the organs of locomotion (158).....	3.6	3.4	4.3	+6
Ill-defined and unknown causes (205).....	2.1	2.4	1.7	-12
All other diseases (26-30, 32-37, 41-50, 53-69, 85, 86, 155-157, 159, 164).....	5.5	6.4	5.6	-14
Average number of males covered in the record.....	132, 740	133, 636	103, 055	-----

¹ For 13 of these establishments.² Included with "Other respiratory diseases."

EXPERIMENTAL SYPHILIS

Lymph Gland Transfer Method of Determining Human Infection with *Treponema pallidum*

The lymph gland transfer method for the determination of the presence of the *T. pallidum* in human cases of syphilis was applied in 66 instances by G. C. Lake, surgeon, and K. K. Bryant, assistant surgeon, United States Public Health Service. The results obtained indicate the impracticability of using the intratesticular injection of human lymph gland emulsions into rabbits as a method for determining the presence or absence of syphilis in man, except in the early untreated stages. Similarly, the authors' work shows the impracticability of applying this method to the measurement of the chemotherapeutic activity of the arsenicals in the treatment of syphilis in man.

The authors' experience has shown the value of using the results of two sensitive serological tests as presumptive evidence of syphilis in rabbits and as indicating the degree of probability of being able actually to demonstrate the spirochete by the dark field examination of testicular puncture material from rabbits inoculated by the technique which has been employed. It has also shown the value of the dark field examination of emulsion of entire injected testicle as the final test for the presence of *T. pallidum*, particularly in "asymptomatic" animals.

The experiments of which the results are summarized above are reported in National Institute of Health Bulletin No. 157. As long as the supply for free distribution lasts, a copy of this bulletin may be obtained without charge by addressing a request to the Surgeon General, United States Public Health Service, Washington, D. C.

COOPERATIVE RURAL HEALTH WORK OF THE PUBLIC HEALTH SERVICE IN THE FISCAL YEAR 1930¹

By L. L. LUMSDEN, *Medical Director, United States Public Health Service*

In the fiscal year ended June 30, 1930, the United States Public Health Service cooperated in demonstration projects in rural health work in 204 counties in 24 States, as follows:

Alabama.—Colbert, Franklin, Jackson, Lauderdale, Lawrence, Limestone, Madison, and Walker Counties.

Arkansas.—Arkansas, Ashley, Conway, Crittenden, Cross, Desha, Drew, Garland, Jackson, Jefferson, Little River, Mississippi, Monroe, Phillips, Pope, Pulaski, Saline, Union, White, Woodruff, and Yell Counties.

¹ This report applies to work provided for with funds appropriated specifically for "Special studies of and demonstration work in rural sanitation." It does not cover all cooperative activities of the Public Health Service in rural communities.

California.—San Diego and Santa Barbara Counties and San Joaquin district.

Georgia.—Floyd, Glynn, Laurens, and Walker Counties.

Idaho.—Bonneville and Twin Falls Counties.

Illinois.—Pulaski County.

Iowa.—Washington County.

Kansas.—Brown, Cherokee, Dickinson, Greenwood, Lyon, Ottawa, Sedgwick, and Shawnee Counties.

Kentucky.—Ballard, Bell, Breathitt, Carlisle, Carter, Elliott, Estill, Floyd, Fulton, Hickman, Hopkins, Knox, Lawrence, Lee, Leslie, Letcher, Magoffin, Martin, Mason, McLean, Menifee, Monroe, Morgan, Ohio, Owsley, Perry, Trigg, Webster, Whitley, and Wolfe Counties.

Louisiana.—Assumption, Avoyelles, Caldwell, Catahoula, Concordia, East Carroll, Franklin, Iberia, Iberville, Lafayette, La Fourche, La Salle, Madison, Morehouse, Ouachita, Pointe Coupee, Richland, St. Landry, St. Martin, St. Mary, Tensas, Terrebonne, Washington, and West Carroll Parishes.

Massachusetts.—Barnstable County.

Michigan.—Genesee and Wexford Counties.

Mississippi.—Bolivar, Harrison, Hinds, Humphries, Issaquena, Jackson, Sharkey, Sunflower, Union, Warren, Washington, and Yazoo Counties.

Missouri.—Boone, Buchanan, Dunklin, Greene, Jackson, Marion, Miller, Mississippi, New Madrid, Nodaway, Pemiscot, Scott, St. Francois, and St. Louis Counties.

Montana.—Cascade, Gallatin, and Lewis and Clark Counties.

New Mexico.—Bernalillo, Dona Ana, Eddy, McKinley, Santa Fe, Union, and Valencia Counties.

North Carolina.—Cumberland, Edgecombe, Richmond, and Robeson Counties.

Oklahoma.—Okmulgee, Ottawa, and Seminole Counties.

South Dakota.—Pennington County.

Tennessee.—Bledsoe, Clay, Cumberland, Dyer, Fentress, Gibson, Grundy, Hamilton, Jackson, Lake, Lauderdale, Meigs, Montgomery, Obion, Overton, Pickett, Rhea, Roane, Sequatchie, Shelby, Sullivan, Unicoi, Washington, Weakley, and Williamson Counties.

Texas.—Cameron County.

Virginia.—Accomac, Alleghany, Bath, Charlotte, Chesterfield, Northampton, Pittsylvania, Powhatan, Prince Edward, Pulaski, Roanoke, Smyth, and Washington Counties.

Washington.—Clark County.

West Virginia.—Berkeley, Boone, Brooke, Fayette, Gilmer, Hancock, Harrison, Kanawha, Logan, Marion, Monongalia, Ohio, Preston, Raleigh, and Wood Counties.

The results were thoroughly in line with the conclusions in the reports on this activity for the fiscal years 1920 to 1929, inclusive.²

Plan of Work

The plan of the work was generally similar to that carried out in each of the 10 preceding fiscal years (Reprints Nos. 615, 699, 788, 887, 964, 1047, 1118, 1184, 1259, and 1339).

The authorization for this work is in the act of February 15, 1893 (ch. 114, 27 Stat. L. 449); the act of August 14, 1912 (ch. 288, 37 Stat. L. 309); and in the annual appropriation acts. The appropriation is specifically for "Special studies of and demonstration work in rural sanitation."

The work is conducted in cooperation with State and local health authorities. It is made a part of a well-rounded comprehensive program of local (county or district) health service.

Through such connection as this with local whole-time health service projects, the Public Health Service can operate most economically and efficiently toward meeting its responsibility to help prevent the spread of human infection in interstate traffic. The cooperative projects also furnish most favorable opportunities for studies, by the Public Health Service, "of the diseases of man and conditions influencing the propagation and spread thereof". Thus, this rural-sanitation activity serves a number of important general purposes besides those specified in the appropriating act, and though quite limited as yet in extent it appears to contribute to the most important results of the Federal Government's operations for the promotion of the general welfare.

The demonstration work in rural sanitation can not, under the provisions of the appropriating act, be conducted in a community unless the State, county, or municipal official agencies concerned agree to pay separately or together at least one-half the expenses of such demonstration work. The funds provided by the State, county, and municipalities, inclusive, for support of the average demonstration project far exceed the allotment from the Federal fund, and in most instances the appropriation from the local official sources (county, township, or town) covers considerably more than 50 per cent of the budget. Though the allotment from the Federal fund may be made under the legal provisions as much as 50 per cent of the budget, it is seldom, even during the developmental stage in the first year or two of the work, made more than 25 per cent. When the health unit

² Reprint No. 615, from Public Health Reports of Oct. 1, 1920, p. 15; Reprint No. 699, from Public Health Reports of Oct. 7, 1921, p. 17. Reprint No. 788, from Public Health Reports of Sept. 29, 1922, p. 22; Reprint No. 887, from Public Health Reports of Dec. 14, 1923, p. 24; Reprint No. 964, from Public Health Reports of Oct. 17, 1924, p. 23; Reprint No. 1047, from Public Health Reports of Oct. 23, 1925, p. 33; Reprint No. 1118, from Public Health Reports of Oct. 22, 1926, p. 37; Reprint No. 1184, from Public Health Reports of Oct. 21, 1927, p. 51. Reprint No. 1259, from Public Health Reports of Nov. 30, 1928, p. 57; Reprint No. 1339, from Public Health Reports of Dec. 6, 1929, p. 19.

becomes an established local institution, which is generally the case after several years of cooperation, the Federal allotment is, as a rule, reduced to an amount not exceeding 10 per cent of the local budget. Along with the decrease in the Federal allotment to the unit there is always urged and usually realized a substantial and much more than balancing increase in the appropriation from the local official sources.

Under this cooperative arrangement the rural sanitation work of the Public Health Service is carried out in each project by a local health force intended to be permanent and is made a part of a general program of rural health work deemed suitable to the locality. Thus, it is accomplished more economically and with more lasting effects from a demonstration standpoint than it could be if undertaken by a specialized force working a comparatively short time in the locality.

The unit for the work, as a rule, is the county; but it may be a group of townships in the same vicinity or a district comprising two or three adjacent counties. In some of the units, incorporated villages, towns, and cities are included. The population of some of the cities so included ranges as high as 50,000 to 60,000. Under the cooperative arrangements a good program of health work can be carried out in practically any rural county or district in the United States at a cost to the county or district easily within its means. The average cooperative demonstration project is conducted on a cost basis of less than 50 cents per capita of population served and furnishes a striking example of efficiency with economy in public service. In many counties efficient whole-time county health service can be provided at an annual cost of less than \$2 to the local taxpayer with real property assessed at \$5,000 to \$6,000. An annual budget of \$10,000 to \$15,000 will provide, in most sections of this country, the services of a county health department force consisting of 1 whole-time health officer, 1 whole-time sanitary inspector, 1 or 2 whole-time health nurses, and 1 office clerk. Such a force can render highly effective health service in any county with a population under 30,000. For larger units of population, larger forces are needed and should be provided, certainly after the first year or two of operation.

The members of the working forces in the cooperative demonstration projects are appointed by the proper local government authorities, but the appointees must be acceptable to the cooperative official agencies—the State board of health and the United States Public Health Service. The only ground upon which the interests of the cooperative agencies are likely to meet with respect to the appointments is fitness for efficient services. With such expressed understanding, the local authorities at times may be relieved of local political embarrassment in exercising their appointing power.

All salient branches of health work such as acute communicable disease control measures, sanitation of private homes and public

places, malaria prevention, tuberculosis control, goiter prevention, infant and maternity hygiene, venereal disease prevention, school hygiene, etc., are carried out in the projects. Attention is expected to be concentrated upon the different branches of the work in what appears to be the most advantageous sequence. The various activities can be dovetailed with one another so that every dollar invested and every unit of energy expended may yield the biggest possible return in health promotion and disease prevention. The director of the unit, the county or district health officer or sanitary officer, is given full responsibility for the detailed execution of the work. He has from time to time, and can secure at any time, advice and counsel and active assistance from specially experienced representatives of the State board of health and the United States Public Health Service.

By having all salient branches of health work for the community conducted under the direction of one head, the whole-time county health officer, who is given a status of field agent in the United States Public Health Service, and in some of the States that of deputy State health officer, a maximum of services can be rendered with a minimum of overhead expense, lost motion, and friction. Through good business management, the funds invested in the enterprise can be made to yield a remarkable dividend in the protection and promotion of human health and in a money saving to the community, resulting from the prevention of sickness and loss in wage earning, amounting to many times the cost of the service. The net economic gain is especially impressive in farming communities.

This plan of cooperative rural health work has been evolved in the course of field experience and has been tested under a wide range of local conditions. It seems applicable to all the rural districts of the United States. The provision of means for a reasonably rapid extension of this work would, according to all the evidence, prove highly advantageous from every standpoint—individual, community, State, and national.

Appropriation

The appropriation for the rural sanitation work of the Public Health Service in the fiscal year 1930 was \$346,000. Against the amount appropriated was set up a budget saving of \$2,000. The unexpended balance from the operations of the preceding fiscal year was \$7,720.72.³ Thus, \$351,720.72 was available.

³ The unexpended balance was due not to an excessive amount of money being available, but to temporary suspensions of the work and consequent decreased expenditure in some of the projects to which allotments had been made for the whole fiscal year 1928. Such suspensions are necessitated by various local circumstances and can not be anticipated when the contracts are made. With the existing differences between the Federal fiscal year and the fiscal years of some of the States and localities in which the work is conducted, it would not be practicable, without lessening the degree of economy striven for, to arrange contracts so that the allotment of Federal funds to every project would be expended exactly by the end of the Federal fiscal year.

Rural health work is applicable to communities in the United States comprising about 60 per cent (or over 70,000,000) of our total population. Such communities include farm and other open-country homes, incorporated rural towns and villages (with populations under 2,500), and, as the county is the logical political unit for official rural health-work administration, many towns and cities with populations ranging from 2,500 to 50,000.

Under present conditions of transportation and travel, rural and urban health conditions constantly react upon each other. Therefore rural health work is of importance to our entire population. The sanitary quality of the tremendous volume of raw foods now shipped daily through interstate traffic is of keen importance, for both humane and business reasons, to our public and our private interests and may be enhanced and safeguarded by reasonably adequate, coordinated, joint activities of governmental agencies—local, State, and Federal. To undertake sanitary control of traffic and travel by inspection and quarantine at our city borders and on our interstate lines now would be futile and ridiculous. The efficient local health department, in doing its local work, performs a duty of state-wide and nation-wide importance with which the State and the Federal health services are concerned. Therefore it seems reasonable and proper for State and Federal agencies to encourage and help in the development and permanent maintenance of such departments.

Only about 24 per cent of our rural population is as yet provided with local health service approaching adequacy under the direction of whole-time local (county or district) health officers.⁴ Because of lack of efficient, whole-time rural health service, infections of man are spread constantly within the State and very frequently across interstate lines.

In our rural communities there are about 1,000,000 persons incapacitated all the time by illness, much of which is preventable; about 70 per cent of the school children are handicapped by physical defects, most of which are preventable or remediable; about 30 per cent of persons of military age are incapacitated for arduous productive labor or for general military duty, largely from preventable causes; and over 60 per cent of the men and women between 40 and 60 years of age are in serious need of physical reparation, largely as a result of preventable causes. In the registration area of the United States the rural death rate in recent years has been higher than the urban for malaria, influenza, typhoid fever, and tuberculosis of the respiratory tract. In view of these conditions there is no room for reasonable doubt about the need for more and better rural-health service in this country.

⁴ Reprint No. 1372, from Public Health Reports of May 9, 1930.

Efficient health service results in life saving, disease prevention, health promotion, and economic saving. The saving in dollars and cents amounts to many times the cost of the service. Most of our rural county governments are not disposed to establish reasonably adequate county health service without an offer of financial assistance and competent counsel from some outside agency.

The amounts specifically appropriated by Congress for the rural sanitation work of the United States Public Health Service have been as follows:

Fiscal year	Amount	Fiscal year	Amount
1917.....	\$25, 000	1925.....	\$74, 300
1918.....	150, 000	1926.....	75, 000
1919.....	150, 000	1927.....	75, 000
1920.....	50, 000	1928.....	85, 000
1921.....	50, 000	1929.....	347, 000
1922.....	50, 000	1930.....	346, 000
1923.....	50, 000	1931.....	338, 000
1924.....	50, 000		

Of the amount appropriated for the fiscal year 1931, \$185,000 is available for general use and \$153,000 for use in the flood counties of the Mississippi Valley.

The total for this activity in the last 15 years has been less than one forty-thousandth of the total congressional appropriation.

Expenditures

The expenditures in the fiscal year 1930 totaled \$342,160.79. Of this sum, \$331,697.15 was expended in allotments for direct support of cooperative projects in counties or districts, and \$10,463.64 was expended for general administration, supervision of local projects, and special studies of the problem of rural sanitation.

Of the expenditures for direct support of units, \$249,261.30 was expended in the flood county projects in the Mississippi Valley and \$82,435.85 was expended in regular demonstration projects. All of the unexpended balance of \$9,559.93 at the end of the fiscal year was in the allotments to the 95 flood county projects.

For the support of the work in the 204 local projects the expenditures from all sources totaled \$2,232,976.35. Of this sum, \$331,697.15 was allotted from the rural sanitation funds of the Public Health Service; an aggregate of \$1,688,132.69 was derived from State, county, and municipal governmental sources; and \$213,146.51 was derived from other sources, including local health associations, tuberculosis associations, local Red Cross chapters, the Rockefeller Foundation, and the Children's Bureau of the United States Department of Labor. Thus this investment of the Federal funds appropriated for rural sanitation work was met with odds of over 5 to 1. For the regular

demonstration projects outside the "flood" counties, the odds were over 10 to 1, as was the case in each of the several preceding fiscal years.

It is significant that organizations entering the public-health field to promote or conduct some specialized activity—such as typhoid fever prevention, hookworm control, tuberculosis prevention, trachoma control, malaria control, venereal disease prevention, school hygiene, or advancement of child and maternity hygiene—realize, as a rule, after practical experience, the advantage of dovetailing their specific activities with and making them a part of a well-rounded comprehensive program of local official health service under the immediate direction of a qualified, whole-time local health officer. Such arrangement is obviously in the interest of efficiency with economy in public health work in our rural districts.

Detailed Data

The expenditures from the different sources for support of the cooperative demonstration projects, the scope, the principal activities, and some of the results of the work are presented in the accompanying tabular statement.

In attempting to measure the efficiency of health service, consideration is to be given to the local conditions—climatic, topographical, geographical, social, economic, and other—under which the work is done, the duration, nature, and scope of the activities, the cost of the service, and the results achieved. The 204 cooperative projects grouped by States in this tabular statement present a wide range of local conditions. From equivalent, well-directed efforts, much larger results are obtainable in one such project than in another. Considering the cost of the service, the activities and results reported, and the findings from direct surveys of the situation by representatives of the Public Health Service and the State boards of health concerned, it is apparent that in the fiscal year 1930 some of the projects were highly successful, others were not up to reasonable expectations, and the average was good.

Counties (or district)	8 in Alabama	21 in Arkansas	3 in California	4 in Georgia	2 in Idaho	1 in Illinois	1 in Iowa	8 in Kansas	30 in Kentucky	24 in Louisiana	1 in Massachusetts	2 in Michigan	12 in Mississippi
Total number of months of operation in fiscal year 1930	96	241	36	48	17	214	3	87½	306	289	12	24	144
A. EXPENDITURES													
1. Rural sanitation funds (P. H. S.)	\$7,844.88	\$75,142.26	\$4,040.92	\$1,200.00	\$3,400.00	\$566.67	\$75.00	\$8,187.50	\$70,000.00	\$65,039.09	\$1,500.00	\$3,586.92	\$27,639.82
2. State	20,073.44	13,547.91			3,684.94	340.00	499.98	5,000.00	68,045.87	63,335.37		5,801.07	30,798.44
3. County	39,899.55	92,935.54	211,415.75	30,004.64	7,113.39	472.22	792.21	44,110.00	61,850.71	70,770.87	11,780.40	11,776.87	100,901.95
4. Municipalities	10,090.28			3,991.80			37.50	1,500.00					23,068.57
5. Other agencies	18,921.13	31,028.06	1,100.00	6,319.70	125.00	377.76	654.41	7,400.00	23,733.28	37,207.92		7,869.66	11,086.46
Total	96,829.28	212,653.77	216,565.67	47,516.14	14,323.33	1,766.65	2,059.10	66,197.50	223,629.86	236,354.05	13,280.40	29,034.52	193,495.24
B. ACTIVITIES													
1. Educational:													
(a) Lectures	931	3,534	172	229	33	(¹)	15	495	620	2,849	45	85	1,801
(b) Attendance	44,217	172,352	7,385	12,064	1,728		460	18,888	38,714	101,151	1,710	5,328	107,699
(c) Bulletins distributed	25,128	107,388	13,966	12,630	170		1,853	91,920	152,691	103,433	93	2,152	43,142
(d) Newspaper articles	319	1,747	400	263	75		9	1,507	1,085	720	53	166	974
(e) Circular letters	20,046	27,202	25,636	3,334	149		200	44,933	1,166	46,080	10	2,950	65,932
(f) Health exhibits	5	559	126	1			1	26	606	227		30	
2. Sanitary inspections:													
(a) Private premises	16,486	50,706	5,399	55,221	95		8	1,504	7,811	24,752	376	153	61,003
(b) Public premises—schools, churches, stores, camps, etc.	2,671	14,386	3,072	445	457		3	2,973	1,468	5,333	334	205	9,851
3. Special inspections:													
(a) Dairies	1,337	2,896	9,777	472	73			342	718	1,265	1,596	261	3,585
(b) Other food-producing or food-handling places	2,704	5,434	14,166	486	142			742	4,264	4,033	443	102	33,494
4. Examinations:													
(a) For life-extension advice	578	1,282	1,631	46				575		689		178	2,403
(b) For marriage license	707									104		3	
(c) For work certificates (children)	325	261	32	166						35		6	200
(d) For lunacy	112	10	10	7				40		3		8	
(e) Of prisoners	647	1,161	495	46			2	670		23		60	
(f) Of food handlers	293	1,523	338	250	468			56		1,645	42	36	1,075
5. Acute communicable disease control:													
(a) Visits to cases, carriers, contacts, or suspects	1,856	4,344	26,044	1,037	2,108		250	6,679	4,245	6,387	618	2,956	2,859
(b) Cases or carriers, isolated or quarantined	1,162	2,871	3,787	307	743		18	4,269	1,950	1,632	661	1,368	1,126

* Project terminated Sept. 8. Reports on activities and results in period of operation not obtainable.

Counties (or district)	8 in Alabama	21 in Arkansas	3 in California	4 in Georgia	2 in Idaho	1 in Illinois	1 in Iowa	8 in Kansas	30 in Kentucky	24 in Louisiana	1 in Massachusetts	2 in Michigan	12 in Mississippi
Total number of months of operation in fiscal year 1930.....	96	241	36	48	17	2 1/4	3	87 1/2	306	289	12	24	144
B. ACTIVITIES—continued													
6. Venereal-disease control:													
(a) Suspects examined.....	1,830	1,165	1,044	5,037	12		1	146	5,307	301		49	2,620
(b) Prophylactic treatments.....	1,938	36		45			62	3		62		6	
(c) Curative treatments.....	3,423	1,000	10,342	23,544				50	6,183	1,618	11	66	1,441
7. Tuberculosis control:													
(a) Number examined.....	299	1,577	986	155	19		1	313	952	223	7	221	372
(b) Positive.....	76	424	234	29	8			99	238	99	2	90	91
(c) Negative.....	223	1,153	752	126	11		1	214	714	124	5	131	281
(d) Placed in institutions.....	5	74	134	16	2			19	38	80	42	80	26
(e) Home visits.....	1,301	1,120	967	333	31		3	650	979	1,015	21	589	1,389
8. Persons treated for removal of hook-worm.....	74	309		301					391	1,191			469
9. Persons treated for prevention or cure of goiter.....	3	56			121			12		23		8	
10. Schick tests.....	474	50	20		3			95	218	223	44	1,062	13,008
11. Cows tuberculin tested.....	5,175	3,793	27,829	72				868	3,296	9,689	2,865	12,500	5,348
12. Immunization:													
(a) Complete antityphoid administrations.....	27,900	29,682	911	11,064	27		1	2,650	82,238	72,730	18	41	21,265
(b) Antismallpox vaccinations.....	2,076	25,941	6,032	3,467	220			6,637	20,960	19,220	640	4,711	22,150
(c) Complete diphtheria toxin-antitoxin administrations.....	3,637	13,154	6,110	2,910	3			13,703	41,193	29,419	285	4,111	7,225
(d) Persons given prophylactic diphtheria antitoxin.....	66	577	10	68	28			212		637	152	32	
(e) Persons given antirabic treatment.....	43	75	11	4				5	104	113		10	79
13. Child hygiene:													
(a) Prenatal—													
(1) Cases given advice.....	769	1,000	621	535				525	563	697	101	165	1,164
(2) Examinations.....	63	257	151	334				22	538	89	60	89	1,215
(3) Office consultations.....	124	514	123	475				179		225	38	47	916
(4) Group conferences.....	171	90	71	109				2		86	24	3	113
(5) Home visits.....	1,176	1,078	775	537			5	516	619	835	106	1,755	1,116
(6) Midwives instructed.....	265	3,009	10	520				2	145	3,549			4,207
(b) Infant and preschool—													
(1) Babies and children examined.....	2,373	5,941	6,564	662	179		172	2,622	2,394	2,487	274	820	7,560
(2) Office consultation, mothers.....	748	2,581	5,245	838	5		121	2,099		1,142	65	24	7,494
(3) Group conferences with mothers.....	211	355	361	133			14	178	297	200	28	11	182
(4) Home visits.....	4,278	3,372	8,212	639			69	2,179	6,358	1,554	494	1,117	5,639
(c) School—													
(1) Children examined.....	41,847	71,227	16,148	11,531	1,758		208	29,455	80,974	43,555	5,330	9,134	39,683

(2) Found defective.....	21,401	47,868	7,350	4,003	1,304	152	15,363	63,036	32,467	2,488	4,561	25,365
(3) Disinfectant.....	28,885	88,453	10,923	4,581	1,604	353	27,030	139,323	78,751	2,916	9,622	32,425
(4) Consultation, parents (office and school).....	1,248	6,930	5,226	1,266	124	4	6,699	1,866	6,496	173	111	7,492
(5) Home visits.....	4,299	6,344	23,659	1,985	765	104	5,688	6,532	6,532	432	2,289	1,364
(6) Talks to classes or drills in hygiene.....	65	2,303	1,625	181	-----	82	2,363	6,496	3,375	144	975	503
(7) Exclusions for communicable diseases.....	363	2,159	5,065	222	389	84	2,316	97	1,219	543	375	-----
(d) Nutritional classes—												
(1) Cases attending.....	(¹)	871	167	270	(¹)	(¹)	(¹)	(¹)	3,227	(¹)	81	(¹)
14. Antimalarial work.....												
15. Laboratory examinations:												
(a) Positive.....	2,463	2,025	4,485	1,902	299	15	853	2,859	4,468	365	196	5,200
(b) Negative.....	7,229	6,074	14,132	5,320	4,872	46	2,559	8,575	13,404	1,097	584	15,780
Total.....	9,692	8,099	18,617	7,222	4,872	61	3,412	11,434	17,872	1,462	780	21,040
C. RESULTS												
1. Sanitary privies installed:												
Type.....												
(a) Septic or L. R. S.....	42	689	-----	-----	-----	-----	3	-----	62	-----	555	-----
(b) Water-tight vault.....	219	118	-----	-----	-----	-----	43	-----	7	-----	355	-----
(c) Bucket and box.....	1,686	2,946	4	1,171	4	1	61	1,401	4,026	34	563	3,068
(d) Pit.....	1,947	3,757	4	1,171	4	1	107	1,401	4,118	34	1,170	3,098
Total.....	1,344	791	4	259	28	-----	142	319	1,945	25	596	4,689
2. Privies restored to sanitary type.....	1,169	211	413	150	2	-----	16	628	1,338	56	16	313
3. Septic tanks installed.....	224	1,601	1,079	899	12	1	169	628	1,492	-----	20	2,076
4. New sewer connections.....	375	1,547	1,027	1,077	2	-----	115	269	1,095	38	38	609
5. New water connections.....	187	1,728	5	28	11	-----	151	2,407	1,000	13	13	492
6. Wells or springs improved.....	6	313	-----	36	25	-----	61	-----	187	7	6	309
7. Public milk supplies radically improved.....	108	613	11	54	97	-----	209	-----	372	3	24	-----
8. Public food-handling places radically improved.....	4	283	4	52	81	-----	28	-----	97	-----	24	-----
9. Places producing foods for sale radically improved.....	192	1,032	7	32	1	-----	-----	113	1,646	-----	11	-----
10. Dwellings effectively screened against flies and mosquitoes.....	111	152	1	18	18	-----	26	3,982	33	6	-----	-----
11. Stables made sanitary.....	2,426	8,848	725	129	153	2	321	-----	3,523	80	106	-----
12. Nuisances corrected.....	219	28	12	4	-----	-----	6	-----	888	-----	-----	-----
13. Convictions for violation of sanitary laws.....	48	1,314	22	170	-----	-----	691	-----	881	61	26	-----
14. Nutritional cases improved.....	37	419	38	87	37	-----	88	-----	37	-----	26	66
15. Corrections of physical defects induced:	369	763	215	113	112	1	230	683	170	116	38	264
(a) In infants.....	5,770	16,419	2,755	622	238	4	8,398	15,946	10,565	1,514	707	7,403
(b) In preschool children.....	40	520	155	134	33	-----	62	-----	435	-----	2	12
(c) In school children.....												
(d) In adults.....												

1 Considerable.

1 Little.

1 None.

Countries (or districts).....	14 in Missouri	3 in Montana	7 in New Mexico	4 in North Carolina	3 in Oklahoma	1 in South Dakota	25 in Tennessee	1 in Texas	11 sanitary-officer projects and 1 whole-time county health unit in Virginia	1 in Washington	15 in West Virginia	Total
Total number of months of operation in fiscal year 1929.....	159	36	71	42	36	11	221	12	144	11	173	2,221 3/4
A. EXPENDITURES												
1. Rural sanitation funds (P. H. S.).....	\$12,983.34	\$5,599.92	\$2,249.96	\$1,822.84	\$4,599.84	\$2,200.00	\$18,017.45	\$2,300.00	\$6,080.02	\$2,999.57	\$4,611.55	\$331,607.15
2. State.....	33,312.86	11,790.00	4,918.73	12,959.61	7,828.60	6,379.10	77,613.35	4,004.00	22,996.46	1,619.00	23,302.10	405,848.93
3. County.....	79,097.40	24,057.75	46,063.19	16,576.29	12,929.83	6,379.10	110,395.00	8,603.67	24,206.69	13,483.00	116,641.05	1,147,787.32
4. Municipalities.....	21,397.29	18,422.68	2,047.91	2,047.91	3,333.24	1,650.00	10,300.00	2,248.78	4,362.20	4,362.20	36,429.59	134,490.44
5. Other agencies.....	33,097.44	13,029.30	5,075.25	256.25	3,333.24	1,650.00	10,300.00	2,248.78	2,000.00	4,362.20	8,881.65	213,146.51
Total.....	179,798.42	72,869.65	58,327.13	33,662.90	28,291.51	10,829.10	216,325.80	13,132.45	55,283.17	20,844.77	180,865.94	2,232,976.35
B. ACTIVITIES												
1. Educational:												
(a) Lectures.....	1,195	87	299	727	332	41	1,345	54	305	48	523	15,765
(b) Attendance.....	33,515	3,947	16,770	16,406	10,469	648	85,576	4,004	13,576	2,320	34,981	733,608
(c) Bulletins distributed.....	83,032	11,948	6,459	16,643	8,160	3,270	53,116	230	33,475	1,619	166,392	938,910
(d) Newspaper articles.....	1,936	267	651	162	120	158	729	65	187	2	1,014	13,209
(e) Circular letters.....	31,667	2,738	3,584	17,337	1,777	1,011	11,648	591	10,153	17,134	25,574	338,877
(f) Health exhibits.....	128	146	25	28	175	2	30	10	7	1	2,213	4,346
2. Sanitary inspections:												
(a) Private premises.....	6,054	2,756	1,269	912	3,887	718	60,960	405	45,627	282	51,643	308,627
(b) Public premises—schools, churches, stores, camps, etc.....	4,115	1,459	1,731	917	1,349	397	15,354	382	835	838	8,218	76,823
3. Special inspections:												
(a) Dairies.....	1,701	186	544	143	43	58	2,540	671	171	532	2,588	31,409
(b) Other food-producing or food-handling places.....	670	1,488	958	831	259	111	3,032	386	230	193	2,702	76,970
4. Examinations:												
(a) For life-extension advice.....	3,029	101	30	438	1		180			576	164	11,920
(b) For marriage license.....	45	33		55	12		337				472	2,532
(c) For work certificates (children).....	296	41	48	292	56		142				2,193	1,264
(d) For lunacy.....	1,050	19	357	1,211	103	1	619				2,193	8,660
(e) Of prisoners.....	30	141	1,138	215	9	15	31	85			2,304	9,734
5. Acute communicable disease control: Visits to cases, carriers, contacts, or suspects.....	11,768	5,510	9,849	753	1,974	289	8,042	122	318	2,233	4,608	104,849

(b) Cases or carriers, isolated or quarantined—										
tined—										
6. Venereal-disease control:										
(a) Syphilis examinations.....	5,616	3,050	4,087	1,786	521	90	1,520	104	750	1,064
(b) Prophylactic treatments.....	1,053	158	71	1,834	321	—	849	93	—	266
(c) Curative treatments.....	92	4	51	—	—	—	73	22	—	—
7. Tuberculosis control:	6,286	145	72	2,056	1,406	—	6,333	53	—	88
(a) Number examined.....	1,199	66	80	713	132	2	1,867	48	177	82
(b) Positive.....	408	25	18	178	82	1	674	17	10	13
(c) Negative.....	791	41	62	535	36	—	1,193	31	138	69
(d) Placed in institutions.....	193	27	4	51	36	—	1,143	1	9	—
(e) Home visits.....	4,216	391	194	156	306	—	6,735	229	—	626
8. Persons treated for removal of hookworm.....	—	—	—	86	—	—	206	—	—	—
9. Persons treated for prevention or cure of gonorrhea.....	67	218	50	—	—	—	9	—	—	—
10. Schick tests.....	1,599	—	150	384	—	—	3,951	—	—	881
11. Cows tuberculin tested.....	2,070	886	6,913	258	1,140	653	11,502	2,124	270	382
12. Immunization:	—	—	—	—	—	—	—	—	—	—
(a) Complete antityphoid administrations.....	2,132	7,072	1,457	9,338	12,402	—	72,591	247	585	13
(b) Antismallopox vaccinations.....	25,807	1,010	5,556	12,055	4,615	428	24,702	1,429	284	3,293
(c) Complete diphtheria toxin-antitoxin administrations.....	4,229	1,714	3,533	6,457	4,985	11	23,519	106	1,798	4,430
(d) Persons given prophylactic diphtheria antitoxin.....	420	141	706	48	73	—	348	1	—	22
(e) Persons given antirhabd treatment.....	88	2,081	2	15	26	—	255	—	0	—
13. Child hygiene:	—	—	—	—	—	—	—	—	—	—
(a) Prenatal:	—	—	—	—	—	—	—	—	—	—
(1) Cases given advice.....	978	52	531	968	207	—	996	214	—	50
(2) Examinations.....	165	6	200	196	4	—	—	—	—	29
(3) Office consultations.....	487	28	167	78	58	—	143	116	—	23
(4) Group conferences.....	42	10	183	26	12	—	256	14	—	10
(5) Home visits.....	1,097	91	357	1,266	75	—	2,308	250	12	181
(6) Midwives instructed.....	37	—	87	491	30	—	126	207	17	—
(b) Infant and preschool:	—	—	—	—	—	—	—	—	—	—
(1) Babies and children examined.....	7,713	1,917	2,355	2,732	307	426	2,044	518	691	331
(2) Office consultations, mothers.....	2,041	1,203	617	307	278	—	4,271	252	—	118
(3) Group conferences with mothers.....	584	31	139	399	115	—	1,900	63	3	16
(4) Home visits.....	4,114	600	3,188	2,112	583	3	5,491	1,005	86	649
(c) School:	—	—	—	—	—	—	—	—	—	—
(1) Children examined.....	45,805	14,814	11,045	8,673	13,611	5,191	18,733	2,236	5,485	7,631
(2) Found defective.....	27,645	7,989	4,717	10,824	10,824	—	16,648	799	4,124	1,485
(3) Defects found.....	46,309	15,433	6,220	5,184	15,797	2,060	27,617	1,375	5,517	2,046
(4) Consultations, parents (office and school).....	3,663	782	1,049	820	747	—	658	207	87	193
(5) Home visits.....	4,827	7,984	1,268	712	609	750	5,148	848	605	491
(6) Talks to classes or drills in hygiene.....	2,070	227	398	130	271	—	2,089	454	3	21
(7) Exclusions for communicable diseases.....	3,772	1,343	1,864	877	400	192	1,433	306	—	680
(d) Nutritional classes:	—	—	—	—	—	—	—	—	—	—
(1) Cases attending.....	266	253	328	234	51	—	60	—	—	2,009
14. Antimalaria work.....	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)

* None.

* Little.

1 Considerable.

Counties (or districts)	14 in Missouri	3 in Montana	7 in New Mexico	4 in North Carolina	3 in Oklahoma	1 in South Dakota	25 in Tennessee	1 in Texas	11 sanitary-officer pro- whole-time county health unit in Virginia	1 in Wash- ington	15 in West Virginia	Total
Total number of months of operation in fiscal year 1929	159	36	71	42	36	11	221	12	144	11	173	2,221½
B. ACTIVITIES—continued												
15. Laboratory examinations:												
(a) Positive	325	704	1,742	694	153	30	10,707	256	607	338	3,257	44,053
(b) Negative	7,530	2,189	7,373	2,130	369	90	31,919	767	2,089	3,091	9,093	146,013
Total	7,855	2,893	9,115	2,824	522	120	42,626	1,023	2,796	3,429	12,350	190,106
C. RESULTS												
1. Sanitary privies installed:												
Type—												
(a) Septic or L. R. S.	34	10										1,043
(b) Water-tight vault.	23	16										1,234
(c) Bucket and box.	57											1,329
(d) Pit.	409											33,361
Total	523	35	59	1,156	430	2	6,670	65	9,038		2,106	36,867
2. Privies restored to sanitary type	665	50	184	1,611	270	17	6,401	21	2,502		4,687	26,550
3. Septic tanks installed	272	22	29	3	61	80	1,124	113	802		200	3,643
4. New sewer connections	443	306	365	77	14	141	639	85	492		1,057	12,557
5. New water connections	402	253	652	59	23	8	804	19	259		1,718	10,859
6. Wells or springs improved	252	23	63	23	23	8	242	42	4		1	7,677
7. Public milk supplies radically improved	236	40	78	4	13						28	1,801
8. Public food-handling places radically im- proved	217	68	138		388	14	520	56	207		60	3,389
9. Places producing foods for sale radically improved	24	41	47	175	119	12		23			17	1,067
10. Dwellings effectively screened against flies and mosquitoes	336		286		8		1,240	36			509	5,449
11. Stables made sanitary	47	6	72	24	33		97	19			1	577
12. Nuisances corrected	1,754	2,444	612	116	1,483	53	8,366	139	658		1,964	38,072
13. Convictions for violation of sanitary laws	11	20	4	40	2		126	9			2	1,378
14. Nutritional cases improved	1,081	656	525	109	111			6			705	6,662
15. Corrections of physical defects induced:												
(a) In infants	464	59	731	2	11		31	12	86		2	2,361
(b) In preschool children	339	218	296	442	24		172	42	605		90	5,572
(c) In school children	7,157	5,897	1,896	3,139	1,408		4,651	172	1,737		810	104,431
(d) In adults	469	17	553	26	32			6	925		1	3,447

A detailed description of any one of a large majority of the projects would present evidence of the remarkable effectiveness and economy of this plan of cooperative health work.

Sanitary Officer Projects in Virginia and Tennessee Counties

The plan of special demonstration work in rural sanitation inaugurated in Virginia in the fiscal year 1920 was carried out in 11 counties⁶ in that State and in 8 counties⁷ in Tennessee in the fiscal year 1930. This plan, which is described in previous reports,⁸ continues to prove highly successful. It meets remarkably well the situations in rural counties in which effective health work, if done at all, must be done on a low-cost basis and in which environmental sanitation is especially needed. The cost for such service in the average county is about \$2,750 a year. The county sanitary officer is engaged on a whole-time basis. He does not have to be a graduate in medicine or engineering, but he must be a trained, practical sanitarian. Along with his sanitary work, he carries out, with the active cooperation of the local physicians, most of the other activities expected of a whole-time county health officer with a medical degree.

The results accomplished in the county sanitary officer projects become more impressive from year to year. Some of these counties are now among the foremost in the list of rural counties in the United States presenting high-grade demonstrations in sanitary progress.

In the 11 projects in Virginia there were brought about within the fiscal year 1930, notwithstanding the extensive sanitary improvements in previous years of operation, radical sanitary improvement of 10,187 excreta disposal systems at homes or public places—an average of 77 per man per month for the sanitary officers engaged in the work. After projects of two years' duration in Powhatan and Alleghany Counties, over 99 per cent of the homes are reported to be provided with sanitary excreta disposal systems.

Of the 12 county sanitary officer projects established in Tennessee within the last 5 years, 9 have been reorganized with increased local appropriations to become health units or parts of 2-county or 3-county health units headed by whole-time county health officers.

This county sanitary officer plan, after 11 years of testing, appears to offer to the counties to which it is appropriate as large a return on the investment for county health service as any other yet tried or proposed.

⁶ Alleghany, Bath, Charlotte, Chesterfield, Pittsylvania, Powhatan, Prince Edward, Pulaski, Roanoke, Smyth, and Washington.

⁷ Bledsoe, Cumberland, Grundy, Fentress, Overton, Pickett, Sequatchie, and Unicoi.

⁸ Reprint No. 615, from Public Health Reports of Oct. 1, 1920, pp. 10, 12; Reprint No. 699, from Public Health Reports of Oct. 7, 1921, pp. 12, 14; Reprint No. 788, from Public Health Reports of Sept. 22, 1922, pp. 14, 17; Reprint No. 877, from Public Health Reports of Dec. 14, 1923, pp. 16, 18; Reprint No. 964, from Public Health Reports of Oct. 17, 1924, pp. 18, 21; Reprint No. 1047, from Public Health Reports of Oct. 23, 1925, pp. 27, 28; Reprint No. 1118, from Public Health Reports of Oct. 22, 1926, pp. 31, 32; Reprint No. 1184, from Public Health Reports of Oct. 21, 1927, pp. 35, 36; Reprint No. 1259, from Public Health Reports of Nov. 30, 1928, pp. 41, 45; Reprint No. 1339, from Public Health Reports of Dec. 6, 1929, pp. 15, 16.

General Progress in Rural Health Work

Progress in the development of whole-time rural (county) health service in the United States continued in the fiscal year 1930. According to data ⁹ collected from the State health departments, the number of counties or equivalent divisions provided with local health service reaching all rural sections thereof, under the direction of whole-time county or district health officers, was 505 at the beginning of the calendar year 1930, as compared with 467, 414, 337, 307, 280, 250, 230, 202, 161, and 109 at the beginning of the calendar years 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1922, 1921, and 1920, respectively. The gain of 396 within this 10-year period, though much less than it might have been had means been provided for a larger degree of cooperation from the Federal and State official agencies is significant.

Our public-health administrators generally now appear convinced that local official health service under the direction of a whole-time local health officer is the most essential element in the development of an adequate system of effective and economical public-health service in the United States, and that most of the work of the Federal and State health agencies should be conducted with and through such local health departments. The principle of cooperative rural health work appears sound in theory and is successful in practice. State health departments in increasing number from year to year are obtaining authorization and appropriations to enable them more nearly to do their due and proportionate part in the development and maintenance of whole-time county health service.

In this vitally important field of activity the 10-year period following the establishment in 1911 of our first county health unit under the direction of a whole-time county health officer ¹⁰ may be regarded as the period of experimentation, the next 10-year period as that of demonstration, and the third 10-year period (to begin in 1931) in this public-health era should be, and according to the signs will be, the period of cooperative development.

The progress made in the construction of good public roads, in the provision of improved public-school facilities, and in other important governmental enterprises in our rural communities generally within the last 30 years furnishes a basis of optimism for an increased rate of development in efficient, economical, whole-time official county health service in this country in the decade 1930-1940.

It appears at this time that of all the fields of activity in which governmental and other agencies may operate for the promotion of the welfare of our people, no other field offers greater net advantages than does that of rural health service. With a marked increase in such service, there would no longer be an excuse for the numerous

⁹ Reprint No. 1372 from Public Health Reports of May 9, 1930.

¹⁰ In Yakima County, Wash.

makeshifts or expedients in rural health work programs which, though comparatively expensive and ineffective, are now supported by many of our public health minded citizens.

It has become more and more evident in the course of various health-promotion campaigns tried out in the United States during the last 25 years that the organization of whole-time county or local district health units with qualified personnel is fundamental to any and all efficient economical health service in our rural communities.

Field forces, State or national, concerned with specialized health activities such as those for the prevention of tuberculosis, malaria, or pellagra, or for the promotion of maternity, infant, preschool child, or school-child hygiene, can operate best when and where they can cooperate with such units. On January 1, 1930, an officer of the Public Health Service, who had had during several previous years intensive experience in malaria control work, was detailed for duty with the rural sanitation field force. His work is to help in the development of effective, economical malaria-control programs as due and proportionate parts of the general program of activities of whole-time health units in the Mississippi Valley. His cooperative activities with the personnel of these health units have resulted in the development of effective and remarkably low-cost antimalaria work in a number of counties in which previously malaria control had been regarded as practically hopeless. The field force of the Public Health Service engaged in trachoma control work has been of great assistance to a number of the cooperative county health units in carrying out practical activities for the diagnosis, treatment, and prevention of trachoma and other eye diseases.

It is evident that along with the anticipated extension of whole-time county health units throughout this country there will be not a contraction but an expansion of the field of usefulness for specialized health workers in our rural communities.

The provision of means to enable the Federal and the State official health agencies to apply coordinately and on an adequate scale their efforts for the organization of efficient whole-time local health service units would appear altogether advantageous. Among the results of such service are lowering of disease and death rates, promotion of general health, and net gain in economic conditions. A recent report by the director of the bureau of rural sanitation of the State board of health of Mississippi presents impressive evidence of the lowering of morbidity and mortality rates as a result of whole-time county health service in that State. According to the records for the calendar years 1927 and 1928, the combined case rate for diphtheria, scarlet fever, typhoid fever, and smallpox was 34 per cent lower and the combined death rate for those same diseases was 44 per cent lower in the aggregate population of about 700,000 in the counties provided

with whole-time county health service than in the aggregate population of about 1,090,000 in the counties with part-time county health service.

In Tennessee, for the 3-year period 1927-1929, the recorded death rate from diphtheria was about 20 per cent lower and that from typhoid fever about 40 per cent lower in the aggregate population of the counties provided with whole-time county health service than in that of the counties not provided with such service.

During the flood disasters in the Mississippi Valley in the spring and summer of 1927 the advantages of previously operating whole-time county health departments were definitely demonstrated. In the flood-stricken counties provided with such departments the whole-time health officers, as a rule, acted with remarkable promptness and efficiency in the organization of working forces and in the carrying out of measures for both immediate and postflood sanitary protection of the stricken people. The contrast between this work in the minority of the counties which had whole-time county health departments and in those not so provided stood out sharply. Since the flood, cooperative agencies, including the United States Public Health Service, the Rockefeller Foundation, and the State health departments directly concerned have helped to develop whole-time county health departments in the (approximately) 90 flood-stricken counties which did not have such organizations at the time of the flood. This undertaking has been attended with a number of practical difficulties, such as obtaining comparatively small appropriations from the hard-pressed county governments for the support of the budgets and securing promptly satisfactory personnel to fill the positions in the county health departments for which financial provision has been made.

Notwithstanding the difficulties of development, a large majority (over three-fourths) of the so-called flood counties are now provided with whole-time health service under the direction of whole-time county health officers. In the average project the work is being carried out with a good degree of efficiency and with results remarkably appreciated by the citizens generally of the counties immediately benefited. Some of these counties were again visited by floods in 1928 and 1929, and all of them suffered from an unprecedented drought in the summer of 1930, but the local authorities, notwithstanding the repeated depressions in economic conditions, have shown in only a very few instances a disposition to have the health units discontinued. They appreciate the profit realized on their investment for the health work.

From all the evidence now at hand, the prophecy is made that if the health service now operating in these flood counties be continued even at its present grade of efficiency for the next three years the net

economic gain from this health service in the 6-year period will more than offset the economic loss from the Mississippi Valley flood of 1927.

Whole-time county health departments as usually organized, in order to be satisfactorily effective in time of disaster, must be in full operation before the disaster. They can not, as a rule, be organized and put on an operating basis of high efficiency within a few days or even a few weeks to meet an unusual critical situation. In view of the preventable-disease disaster with which all the populated counties of the United States not provided with efficient health service are frequently or constantly visited, there appears ample cause for the employment of every reasonable and feasible means to bring about an increased rate of development of efficient whole-time county health service in every section of the United States.

Summary

The 205 cooperative projects in the fiscal year ended June 30, 1930, yielded results exceeding in value many fold the cost of the work. Among the activities and results presented in the tabular statement, to which especial consideration may be given, are the following:

1. Public lectures presenting the principles and details of sanitation to over 733,608 persons.
2. Over 475,460 sanitary inspections of premises, with explanation of findings to occupants or owners of the properties.
3. Physical examination of over 550,647 school children of whom 350,166 were found to have incapacitating physical defects, with notification to parents or guardians of the defects found.
4. Exclusion from public schools of 25,453 children affected with communicable diseases—such as diphtheria, scarlet fever, measles, whooping cough, scabies, and pediculosis—or presenting evidence of being carriers of the contagions of such diseases. This was brought about through active cooperation of school teachers with the county health departments, and it must have been a very considerable factor in preventing widespread infection.
5. One hundred and four thousand four hundred and thirteen recorded treatments effecting correction of incapacitating physical defects among school children. These were brought about by written notification to parents or guardians of defects found, follow-up visits to homes of the children, making available proper clinical facilities, securing active cooperation of the local medical and dental professions, and other activities of the county or district health departments.
6. Bringing about treatments for correction of serious physical defects in 2,361 infants and 5,572 preschool children.
7. Treatments to correct iodine deficiency in 1,148 persons in endemic goiter districts.

8. One hundred and four thousand eight hundred and forty-nine visits to homes of cases of communicable diseases to advise and show the afflicted households how to prevent spread of the infections.

9. Nineteen thousand eight hundred and thirty-six visits by health nurses or health officers to prenatal cases to advise and assist expectant mothers in carrying out hygienic and physiological measures making for healthy mothers and healthy babies.

10. Instruction of 12,880 midwives in cleanly and careful methods.

11. Fifty-five thousand three hundred and five infants and children of preschool age examined and over 59,636 home visits by health nurses or health officers to demonstrate hygienic measures for the promotion of the health and the protection of the lives of infants.

12. Three hundred and ninety-five thousand two hundred and one persons given immunization injections for protection against typhoid fever.

13. Two hundred and nineteen thousand seven hundred and forty persons vaccinated against smallpox.

14. Two hundred and eleven thousand four hundred and forty-four children treated with toxin-antitoxin mixture for immunization against diphtheria.

15. One hundred and nine thousand four hundred and ninety-six cows tuberculin tested, with elimination of reactors from herds to prevent communication of bovine tuberculosis to persons through the medium of milk.

16. Three thousand and thirty-five persons treated effectively for relief from hookworm disease and for the prevention of the spread of the infection.

17. Marked reduction in the spread of malaria in hundreds of localities, with an aggregate population of several hundred thousand.

18. Eighty-seven thousand two hundred and twenty-seven treatments to rid persons of venereal disease infection and prevent the spread of the infection.

19. Special examination of 11,843 persons for tuberculosis, of whom 3,364 were found with an active tubercular process and were advised to place themselves in the care of private physicians and to carry out hygienic measures. One thousand two hundred and ninety-four of the positive cases were sent to institutions maintained in whole or in part for the treatment of tuberculosis.

20. Forty-two thousand eight hundred and forty-two cases of dangerous communicable diseases quarantined to prevent the spread of infection in the local community, the State, and throughout the country.

21. The installation of 36,867 sanitary privies and 3,643 septic tanks at dwellings where previously there had been either insanitary privies or no toilets of any sort.

22. Twenty-six thousand five hundred and fifty privies repaired so as again to be of sanitary type.

23. Twelve thousand five hundred and fifty-seven homes connected for the first time with sanitary sewers.

24. Ten thousand nine hundred and eighty-six homes provided with safe water supplies in place of contaminated water supplies.

25. Radical improvement in 1,801 public milk supplies (from which milk is distributed to a considerable extent through the channels of interstate commerce) to prevent the spread, through milk and milk products, of various infections, including typhoid fever, scarlet fever, undulant fever, diphtheria, tuberculosis, septic sore throat, and infant diarrhea.

26. Eleven thousand nine hundred and twenty adult persons (most of them over 40 years of age) examined and advised about measures to conserve their health and prolong their lives.

Such activities and results indicate that the plan of the work is both comprehensive and effective. Considered from both a public health and an economic standpoint, the total result of such work stands in importance to our national welfare second to none other obtainable from equivalent investment of public funds.

DEATHS DURING WEEK ENDED OCTOBER 4, 1930

Summary of information received by telegraph from industrial insurance companies for the week ended October 4, 1930, and corresponding week of 1929. (From the Weekly Health Index, issued by the Bureau of the Census, Department of Commerce)

	Week ended Oct. 4, 1930	Corresponding week, 1929
Policies in force.....	75, 450, 406	74, 833, 510
Number of death claims.....	12, 460	12, 494
Death claims per 1,000 policies in force, annual rate..	8. 6	8. 7

Deaths¹ from all causes in certain large cities of the United States during the week ended October 4, 1930, infant mortality, annual death rate, and comparison with corresponding week of 1929. (From the Weekly Health Index, issued by the Bureau of the Census, Department of Commerce)

[The rates published in this summary are based upon mid-year population estimates derived from the 1930 census. The rates are not exactly comparable with similar rates published in the Public Health Reports earlier than the issue of August 22, 1930, which were based upon estimates made before the 1930 census was taken]

City	Week ended Oct. 4, 1930				Corresponding week, 1929		Death rate ² for first 40 weeks	
	Total deaths	Death rate ²	Deaths under 1 year	Infant mortality rate ³	Death rate ²	Deaths under 1 year	1930	1929
Total (78 cities).....	6,642	10.0	647	52	10.8	695	12.0	12.8
Akron.....	46	9.4	5	46	6.8	3	8.0	9.5
Albany.....	24	9.8	3	62	16.1	2	14.9	16.5
Atlanta.....	61	11.9	9	32	14.1	5	15.9	16.2
White.....	25	—	4	63	—	2	—	—
Colored.....	36	(⁹)	5	144	(⁹)	3	(⁹)	(⁹)
Baltimore.....	167	10.8	21	73	12.4	24	14.1	14.8
White.....	121	—	14	62	—	17	—	—
Colored.....	46	(⁹)	7	112	(⁹)	7	(⁹)	(⁹)
Birmingham.....	61	12.3	3	29	12.6	5	13.9	16.3
White.....	26	—	0	0	—	3	—	—
Colored.....	35	(⁹)	3	73	(⁹)	2	(⁹)	(⁹)
Boston.....	174	11.6	24	70	11.0	18	14.1	15.2
Bridgeport.....	22	7.8	0	0	10.3	3	11.0	12.3
Buffalo.....	119	10.8	11	49	12.5	16	13.1	14.2
Cambridge.....	32	14.7	6	121	8.7	4	11.8	12.6
Camden.....	24	10.7	1	18	12.0	4	13.8	14.6
Canton.....	14	6.9	1	27	17.0	4	9.9	11.6
Chicago.....	581	8.9	50	44	9.8	53	10.5	11.4
Cincinnati.....	116	13.4	21	124	16.8	13	15.7	17.3
Cleveland.....	163	9.4	19	57	9.5	19	11.2	12.6
Columbus.....	62	11.1	5	49	12.9	10	15.7	15.0
Dallas.....	37	7.3	5	—	10.5	5	11.5	11.7
White.....	30	—	4	—	—	3	—	—
Colored.....	7	(⁹)	1	—	(⁹)	2	(⁹)	(⁹)
Dayton.....	37	9.6	4	60	12.5	3	10.7	11.7
Denver.....	74	13.4	7	76	10.8	7	14.8	14.9
Des Moines.....	31	11.3	3	55	12.5	4	11.8	11.8
Detroit.....	264	8.7	35	54	9.2	39	9.4	11.4
Duluth.....	21	10.8	2	54	14.4	1	11.3	11.8
El Paso.....	29	14.8	11	—	13.0	3	17.6	20.0
Erie.....	26	11.7	3	66	10.0	0	11.3	12.6
Fall River.....	17	7.8	0	0	10.0	2	12.1	14.0
Flint.....	25	8.3	6	71	10.6	9	9.3	10.9
Fort Worth.....	31	10.0	4	—	10.5	5	11.3	12.6
White.....	25	—	4	—	—	5	—	—
Colored.....	6	(⁹)	0	—	(⁹)	0	(⁹)	(⁹)
Grand Rapids.....	20	6.2	1	15	9.1	4	10.4	10.2
Houston.....	67	11.9	6	—	12.6	7	12.3	12.8
White.....	44	—	5	—	—	4	—	—
Colored.....	23	(⁹)	1	—	(⁹)	3	(⁹)	(⁹)
Indianapolis.....	105	15.0	3	25	12.1	9	14.8	14.9
White.....	86	—	3	26	—	9	—	—
Colored.....	19	(⁹)	0	0	(⁹)	0	(⁹)	(⁹)
Jersey City.....	53	8.7	7	61	10.3	2	11.3	12.7
Kansas City, Kans.....	29	12.3	2	47	11.6	4	11.6	13.4
White.....	24	—	1	28	—	2	—	—
Colored.....	5	(⁹)	1	152	(⁹)	2	(⁹)	(⁹)
Kansas City, Mo.....	85	11.2	3	25	11.8	11	13.5	14.1
Knoxville.....	18	8.8	2	47	12.6	1	13.7	13.9
White.....	13	—	2	52	—	1	—	—
Colored.....	5	(⁹)	0	0	(⁹)	0	(⁹)	(⁹)
Los Angeles.....	194	8.1	18	54	9.2	19	11.1	11.4
Louisville.....	66	11.2	6	51	14.6	13	13.6	15.1
White.....	57	—	6	56	—	11	—	—
Colored.....	9	(⁹)	0	0	(⁹)	2	(⁹)	(⁹)
Lowell.....	23	12.0	5	132	8.2	0	13.5	14.3
Lynn.....	19	9.7	2	56	14.5	5	10.5	11.6
Memphis.....	50	10.3	8	94	14.8	11	17.3	19.3
White.....	27	—	3	54	—	5	—	—
Colored.....	23	(⁹)	5	168	(⁹)	6	(⁹)	(⁹)
Milwaukee.....	98	9.0	11	48	8.7	13	9.8	11.2
Minneapolis.....	85	9.5	3	20	8.3	4	10.7	10.9
Nashville.....	51	18.1	8	126	13.9	1	17.5	19.0
White.....	34	—	2	42	—	1	—	—
Colored.....	17	(⁹)	6	373	(⁹)	0	(⁹)	(⁹)

See footnotes at end of table.

Deaths¹ from all causes in certain large cities of the United States during the week ended October 4, 1930, infant mortality, annual death rate, and comparison with corresponding week of 1929—Continued

City	Week ended Oct. 4, 1930				Corresponding week, 1929		Death rate ² for first 40 weeks	
	Total deaths	Death rate ³	Deaths under 1 year	Infant mortality rate ⁴	Death rate ⁵	Deaths under 1 year	1930	1929
New Bedford ⁶	24	11.1	0	0	11.0	3	10.9	12.5
New Haven	37	11.9	7	108	13.5	1	12.8	13.4
New Orleans	134	15.3	15	83	16.3	19	17.6	17.8
White	86		8	68		8		
Colored	48	(⁶)	7	113	(⁶)	11	(⁶)	(⁶)
New York	1,120	8.4	99	42	9.4	112	10.8	11.4
Bronx Borough	146	5.9	10	29	6.9	10	7.9	8.3
Brooklyn Borough	379	7.6	41	43	8.4	38	9.8	10.3
Manhattan Borough	420	11.8	32	41	13.3	53	16.2	16.6
Queens Borough	133	6.3	13	52	7.5	8	7.1	7.7
Richmond Borough	42	13.8	3	58	13.2	3	14.5	16.1
Newark, N. J.	92	10.8	10	52	9.7	7	12.0	12.9
Oakland	67	12.2	3	37	11.4	3	11.0	11.5
Oklahoma City	28	7.9	2	36	12.7	8	10.9	10.8
Omaha	66	16.0	3	36	10.5	2	13.7	13.8
Paterson	36	13.6	6	105	10.6	1	12.4	13.5
Philadelphia	397	10.5	36	53	11.1	41	12.6	13.3
Pittsburgh	137	10.6	18	64	13.9	18	13.8	15.0
Portland, Oreg.	58	10.1	2	25	9.5	1	12.2	12.8
Providence	65	13.5	7	65	9.6	5	13.2	14.7
Richmond	39	11.1	2	29	13.7	2	14.9	16.4
White	26		1	22		1		
Colored	13	(⁶)	1	43	(⁶)	1	(⁶)	(⁶)
Rochester	58	9.3	2	18	9.8	4	11.6	12.5
St. Louis	156	9.9	12	42	12.6	13	14.2	14.8
St. Paul	48	9.2	2	20	8.6	5	10.1	10.5
Salt Lake City ⁷	21	7.8	0	0	13.2	4	12.2	13.1
San Antonio	39	7.9	4		10.9	6	15.2	14.6
San Diego	35	12.2	3	63	13.8	3	14.4	15.3
San Francisco	148	12.3	6	41	9.7	7	13.3	13.2
Schenectady	23	12.5	3	93	7.7	1	11.4	12.4
Seattle	71	10.2	2	20	12.9	7	10.9	11.1
Somerville	19	9.5	1	32	8.1	1	9.8	9.4
Spokane	29	13.1	2	52	12.7	1	12.4	13.0
Springfield, Mass.	34	11.8	2	34	13.7	3	12.2	13.0
Syracuse	41	10.3	3	37	9.2	6	11.7	13.3
Tacoma	21	10.2	1	27	16.2	0	12.5	11.9
Toledo	70	12.5	12	110	11.4	8	12.7	13.7
Trenton	35	14.9	4	77	17.9	4	16.7	17.3
Utica	22	11.2	1	28	9.2	2	14.7	15.5
Washington, D. C.	113	12.1	17	100	13.5	11	15.2	15.5
White	75		8	70		7		
Colored	38	(⁶)	9	161	(⁶)	4	(⁶)	(⁶)
Waterbury	14	7.2	1	24	9.9	5	9.7	9.5
Wilmington, Del. ⁷	24	11.9	6	145	9.4	2	14.7	14.0
Worcester	43	11.4	3	42	10.2	7	12.8	12.7
Yonkers	23	8.8	1	24	7.1	2	8.1	9.4
Youngstown	34	10.4	5	72	11.9	5	10.3	12.3

¹ Deaths of nonresidents are included. Stillbirths are excluded.

² These rates represent annual rates per 1,000 population, as estimated for 1930 and 1929 by the arithmetical method.

³ Deaths under 1 year of age per 1,000 live births. Cities left blank are not in the registration area for births.

⁴ Data for 73 cities.

⁵ Deaths for week ended Friday.

⁶ For the cities for which deaths are shown by color the colored population in 1920 constituted the following percentages of the total population: Atlanta, 31; Baltimore, 15; Birmingham, 39; Dallas, 15; Fort Worth, 14; Houston, 25; Indianapolis, 11; Kansas City, Kans., 14; Knoxville, 15; Louisville, 17; Memphis, 38; Nashville, 30; New Orleans, 26; Richmond, 32; and Washington, D. C., 25.

⁷ Population Apr. 1, 1930; decreased 1920 to 1930; no estimate made.

PREVALENCE OF DISEASE

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring

UNITED STATES

CURRENT WEEKLY STATE REPORTS

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers

Reports for Weeks Ended October 11, 1930, and October 12, 1929

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended October 11, 1930, and October 12, 1929

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Oct. 11, 1930	Week ended Oct. 12, 1929	Week ended Oct. 11, 1930	Week ended Oct. 12, 1929	Week ended Oct. 11, 1930	Week ended Oct. 12, 1929	Week ended Oct. 11, 1930	Week ended Oct. 12, 1929
New England States:								
Maine.....	2	4	7	—	—	4	0	0
New Hampshire.....	10	2	—	—	—	14	0	0
Vermont.....	4	2	—	—	—	—	0	0
Massachusetts.....	47	61	6	6	28	22	1	2
Rhode Island.....	25	12	—	2	1	—	0	2
Connecticut.....	6	15	2	34	9	—	0	0
Middle Atlantic States:								
New York.....	75	115	17	114	52	66	10	5
New Jersey.....	63	96	5	3	34	8	2	2
Pennsylvania.....	90	139	—	—	52	156	2	14
East North Central States:								
Ohio.....	44	90	8	23	10	113	3	4
Indiana.....	41	33	4	—	2	2	3	0
Illinois.....	131	131	24	10	17	93	3	7
Michigan.....	47	92	1	3	36	73	10	14
Wisconsin.....	24	24	25	16	67	78	3	3
West North Central States:								
Minnesota.....	13	22	—	1	7	15	1	1
Iowa.....	9	4	—	1	4	11	1	1
Missouri.....	43	54	2	4	32	17	3	5
North Dakota.....	2	—	—	—	8	5	0	2
South Dakota.....	13	8	—	—	1	—	1	0
Nebraska.....	9	2	—	2	7	25	0	1
Kansas.....	18	33	1	1	1	36	1	1
South Atlantic States:								
Delaware.....	—	—	—	—	1	—	0	0
Maryland ¹	32	25	5	8	5	4	1	0
District of Columbia.....	22	9	—	—	2	1	0	0
Virginia.....	—	—	—	—	—	—	—	—
West Virginia.....	28	31	8	20	15	3	0	0
North Carolina.....	173	245	10	—	3	4	0	5
South Carolina.....	58	81	251	377	—	—	3	0
Georgia.....	21	35	24	60	10	2	0	0
Florida.....	13	15	—	—	1	1	0	0
East South Central States:								
Kentucky.....	9	24	—	—	37	—	0	1
Tennessee.....	60	64	16	10	6	2	8	0
Alabama.....	62	89	20	23	28	11	1	1
Mississippi.....	38	81	—	—	—	—	0	1

¹ New York City only.

² Week ended Friday.

*Cases of certain communicable diseases reported by telegraph by State health officers
for weeks ended October 11, 1930, and October 12, 1929—Continued*

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Oct. 11, 1930	Week ended Oct. 12, 1929	Week ended Oct. 11, 1930	Week ended Oct. 12, 1929	Week ended Oct. 11, 1930	Week ended Oct. 12, 1929	Week ended Oct. 11, 1930	Week ended Oct. 12, 1929
West South Central States:								
Arkansas.....	12	16	15	41	1	-----	0	0
Louisiana.....	14	31	1	16	1	-----	0	3
Oklahoma ¹	51	69	-----	38	4	11	3	0
Texas.....	25	91	12	21	2	2	0	1
Mountain States:								
Montana.....	6	2	-----	-----	-----	198	1	2
Idaho.....	-----	-----	-----	-----	6	2	0	2
Wyoming.....	1	1	-----	-----	-----	1	0	0
Colorado.....	7	5	-----	-----	27	3	1	0
New Mexico.....	11	5	-----	-----	-----	-----	1	0
Arizona.....	9	11	1	-----	9	2	4	0
Utah ¹	2	-----	4	-----	1	1	0	4
Pacific States:								
Washington.....	22	8	-----	2	2	12	1	4
Oregon.....	2	11	6	15	21	5	2	2
California.....	55	62	26	26	62	41	3	4
Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Oct. 11, 1930	Week ended Oct. 12, 1929	Week ended Oct. 11, 1930	Week ended Oct. 12, 1929	Week ended Oct. 11, 1930	Week ended Oct. 12, 1929	Week ended Oct. 11, 1930	Week ended Oct. 12, 1929
New England States:								
Maine.....	16	0	6	46	0	0	5	4
New Hampshire.....	2	0	2	25	0	0	0	3
Vermont.....	0	4	2	6	0	7	0	0
Massachusetts.....	53	10	87	100	0	0	9	9
Rhode Island.....	2	1	5	6	0	0	1	0
Connecticut.....	10	0	16	22	0	0	11	4
Middle Atlantic States:								
New York.....	51	27	111	70	0	9	35	33
New Jersey.....	9	3	49	40	0	0	11	10
Pennsylvania.....	9	18	141	142	0	0	139	44
East North Central States:								
Ohio.....	56	12	174	163	3	18	49	26
Indiana.....	14	0	81	38	8	21	15	10
Illinois.....	27	5	193	241	9	62	28	34
Michigan.....	15	17	119	113	2	25	33	8
Wisconsin.....	16	0	62	30	0	5	3	27
West North Central States:								
Minnesota.....	13	3	33	63	3	1	1	3
Iowa.....	21	4	39	43	15	23	2	2
Missouri.....	27	0	42	51	10	4	24	12
North Dakota.....	0	0	12	19	3	5	4	3
South Dakota.....	24	0	8	4	5	7	1	0
Nebraska.....	15	0	14	17	9	7	6	1
Kansas.....	57	2	41	63	3	1	13	7
South Atlantic States:								
Delaware.....	0	0	4	4	0	0	10	0
Maryland ¹	3	0	33	45	0	0	54	28
District of Columbia.....	1	0	10	7	0	0	5	1
Virginia.....	-----	17	-----	-----	-----	-----	-----	-----
West Virginia.....	3	3	48	34	1	3	58	35
North Carolina.....	1	2	109	116	0	6	23	14
South Carolina.....	1	6	22	29	0	0	46	23
Georgia.....	3	1	32	44	0	0	37	33
Florida.....	0	0	6	9	1	0	3	0
East South Central States:								
Kentucky.....	3	0	27	30	5	3	30	23
Tennessee.....	5	3	54	46	2	0	41	19
Alabama.....	3	1	66	70	1	0	15	10
Mississippi.....	2	0	25	30	1	0	19	22

¹ Week ended Friday.

² Figures for 1930 are exclusive of Oklahoma City and Tulsa.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended October 11, 1930, and October 12, 1929—Continued

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Oct. 11, 1930	Week ended Oct. 12, 1929	Week ended Oct. 11, 1930	Week ended Oct. 12, 1929	Week ended Oct. 11, 1930	Week ended Oct. 12, 1929	Week ended Oct. 11, 1930	Week ended Oct. 12, 1929
West South Central States:								
Arkansas.....	4	0	7	13	5	1	45	38
Louisiana.....	3	0	9	22	0	0	21	24
Oklahoma.....	6	0	27	48	2	8	36	31
Texas.....	10	1	11	28	11	20	11	10
Mountain States:								
Montana.....	1	0	26	3	0	9	5	37
Idaho.....	0	0	6	1	0	1	5	0
Wyoming.....	2	0	4	2	0	0	0	0
Colorado.....	4	0	8	15	1	9	19	5
New Mexico.....	2	0	9	—	1	0	19	23
Arizona.....	1	0	3	2	0	0	13	2
Utah.....	0	1	11	9	0	1	1	4
Pacific States:								
Washington.....	1	1	40	20	10	17	12	14
Oregon.....	0	2	11	11	0	1	3	7
California.....	57	4	75	137	22	16	13	15

* Week ended Friday.

† Figures for 1930 are exclusive of Oklahoma City and Tulsa.

SUMMARY OF MONTHLY REPORTS FROM CITIES

The following summary of cases reported monthly by States is published weekly and covers only those States from which reports are received during the current week:

State	Cerebro-spinal meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Poliomyelitis	Scarlet fever	Smallpox	Typhoid fever
August, 1930										
Florida.....	3	11	3	77	2	2	0	11	0	21
September, 1930										
Arizona.....	5	25	4	—	11	1	2	23	1	27
Connecticut.....	6	25	9	—	12	—	16	54	0	17
District of Columbia.....	—	44	2	—	23	1	1	13	0	15
Indiana.....	13	58	8	1	9	—	39	128	73	54
New Mexico.....	5	16	—	140	9	5	5	19	1	62
South Carolina.....	—	267	545	2,099	7	284	7	57	0	165
Tennessee.....	11	91	20	162	31	35	13	126	6	268

August, 1930		Dengue:		Cases	
Florida:	Cases	South Carolina.....			10
Chicken pox.....	5	Diarrhea:			
Mumps.....	22	South Carolina.....			568
Typhus fever.....	11	Dysentery:			
Whooping cough.....	12	Arizona.....			5
		Tennessee.....			18
September, 1930		German measles:			
Actinomycosis:		Connecticut.....			7
Connecticut.....	1	Hookworm disease:			
Chicken pox:		South Carolina.....			125
Connecticut.....	23	Impetigo contagiosa:			
District of Columbia.....	2	Tennessee.....			9
Indiana.....	34	Lethargic encephalitis:			
New Mexico.....	1	Connecticut.....			1
South Carolina.....	26	District of Columbia.....			1
Tennessee.....	29				

Lethargic encephalitis—Continued.	Cases	Trachoma:	Cases
South Carolina.....	3	Arizona.....	21
Tennessee.....	1	Indiana.....	2
Mumps:		Tennessee.....	10
Arizona.....	4	Trichinosis:	
Connecticut.....	25	Connecticut.....	1
Indiana.....	4	Tularaemia:	
New Mexico.....	12	New Mexico.....	2
South Carolina.....	28	Typhus fever:	
Tennessee.....	5	Connecticut.....	1
Ophthalmia neonatorum:		District of Columbia.....	1
South Carolina.....	5	South Carolina.....	5
Paratyphoid fever:		Undulant fever:	
South Carolina.....	4	Arizona.....	1
Puerperal fever:		Indiana.....	3
Tennessee.....	1	South Carolina.....	1
Rabies in animals:		Tennessee.....	1
Connecticut.....	8	Vincent's angina:	
South Carolina.....	8	Tennessee.....	4
Tennessee.....	10	Whooping cough:	
Rabies in man:		Arizona.....	33
Connecticut.....	1	Connecticut.....	120
Septic sore throat:		District of Columbia.....	8
Connecticut.....	2	Indiana.....	56
Tetanus:		New Mexico.....	16
Connecticut.....	1	South Carolina.....	114
Tennessee.....	1	Tennessee.....	50

GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

The 95 cities reporting cases used in the following table are situated in all parts of the country and have an estimated aggregate population of more than 31,615,000. The estimated population of the 89 cities reporting deaths is more than 30,132,000. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

Weeks ended October 4, 1930, and October 5, 1929

	1930	1929	Estimated expectancy
<i>Cases reported</i>			
Diphtheria:			
46 States.....	1,227	1,780	
95 cities.....	374	583	765
Measles:			
45 States.....	644	793	
95 cities.....	114	99	
Meningococcus meningitis:			
46 States.....	77	103	
95 cities.....	32	51	
Polioomyelitis:			
46 States.....	647	143	
Scarlet fever:			
46 States.....	1,682	1,953	
95 cities.....	447	600	550
Smallpox:			
46 States.....	175	275	
95 cities.....	5	40	8
Typhoid fever:			
46 States.....	933	773	
95 cities.....	123	97	133
<i>Deaths reported</i>			
Influenza and pneumonia:			
89 cities.....	364	470	
Smallpox:			
89 cities.....	0	0	

City reports for week ended October 4, 1930

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence the number of cases of the disease under consideration that may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding weeks of the preceding years. When the reports include several epidemics, or when for other reasons the median is unsatisfactory, the epidemic periods are excluded, and the estimated expectancy is the mean number of cases reported for the week during nonepidemic years.

If the reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1921 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviation from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

Division, State, and city	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
		Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
NEW ENGLAND								
Maine:								
Portland.....	1	0	0	-----	0	0	0	2
New Hampshire:								
Concord.....	0	0	0	-----	0	0	0	0
Nashua.....	0	0	2	-----	0	0	0	0
Vermont:								
Barre.....	0	0	0	-----	0	0	0	0
Burlington.....	0	0	0	-----	0	0	0	0
Massachusetts:								
Boston.....	8	23	10	-----	0	11	3	4
Fall River.....	1	3	2	-----	0	1	0	0
Springfield.....	11	4	1	-----	0	1	1	0
Worcester.....	1	4	4	-----	1	0	0	0
Rhode Island:								
Pawtucket.....	0	1	0	-----	0	0	0	0
Providence.....	0	5	3	-----	4	0	0	2
Connecticut:								
Bridgeport.....	0	4	1	-----	0	0	0	4
Hartford.....	1	3	0	-----	0	1	0	4
New Haven.....	2	1	1	-----	0	1	0	2
MIDDLE ATLANTIC								
New York:								
Buffalo.....	1	13	9	-----	0	0	4	12
New York.....	17	109	30	-----	3	2	17	72
Rochester.....	2	3	0	-----	0	0	0	3
Syracuse.....	5	2	0	-----	0	0	0	3
New Jersey:								
Camden.....	5	5	1	-----	0	3	0	1
Newark.....	8	11	24	-----	2	0	2	4
Trenton.....	3	2	0	-----	0	0	0	2
Pennsylvania:								
Philadelphia.....	5	43	14	-----	1	3	9	18
Pittsburgh.....	3	17	11	-----	1	1	3	16
Reading.....	1	1	0	-----	0	0	2	0
EAST NORTH CENTRAL								
Ohio:								
Cincinnati.....	2	9	2	-----	0	1	0	4
Cleveland.....	15	42	5	-----	4	1	0	8
Columbus.....	6	4	6	-----	0	0	1	0
Toledo.....	5	8	2	-----	0	1	0	5
Indiana:								
Fort Wayne.....	3	3	0	-----	0	0	0	1
Indianapolis.....	1	13	2	-----	0	0	0	10
South Bend.....	0	1	0	-----	0	0	0	1
Terre Haute.....	0	1	0	-----	0	0	0	2
Illinois:								
Chicago.....	15	74	87	-----	3	0	4	29
Springfield.....	0	1	0	-----	0	0	0	0
Michigan:								
Detroit.....	17	53	26	-----	1	1	9	20
Flint.....	3	3	0	-----	0	1	1	1
Grand Rapids.....	0	2	0	-----	0	0	1	2

City reports for week ended October 4, 1930—Continued

Division, State, and city	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
		Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
EAST NORTH CENTRAL—contd.								
Wisconsin:								
Kenosha.....	7	0	0	-----	0	0	0	0
Madison.....	4	1	0	-----	0	1	3	-----
Milwaukee.....	5	10	0	-----	0	0	5	5
Racine.....	2	1	0	-----	0	0	0	1
Superior.....	2	1	0	-----	0	1	0	2
WEST NORTH CENTRAL								
Minnesota:								
Duluth.....	0	1	0	-----	0	0	0	2
Minneapolis.....	8	26	2	-----	0	0	1	9
St. Paul.....	3	13	0	-----	0	0	0	3
Iowa:								
Des Moines.....	2	4	1	-----	-----	0	0	-----
Sioux City.....	0	2	2	-----	-----	1	4	-----
Waterloo.....	11	0	0	-----	-----	1	0	-----
Missouri:								
Kansas City.....	-----	7	-----	-----	-----	-----	-----	-----
St. Joseph.....	0	1	0	-----	0	0	0	1
St. Louis.....	1	20	13	1	-----	30	0	-----
North Dakota:								
Fargo.....	4	0	0	-----	0	0	6	0
Grand Forks.....	0	0	0	-----	-----	0	0	-----
South Dakota:								
Sioux Falls.....	0	0	0	-----	-----	0	0	-----
Nebraska:								
Omaha.....	0	11	9	-----	0	0	0	5
Kansas:								
Topeka.....	0	2	1	-----	0	1	0	0
Wichita.....	0	2	1	-----	0	0	0	1
SOUTH ATLANTIC								
Delaware:								
Wilmington.....	0	1	1	-----	0	0	0	0
Maryland:								
Baltimore.....	18	19	3	-----	0	1	3	11
Cumberland.....	0	0	0	1	1	0	0	0
Frederick.....	0	0	0	-----	0	0	0	0
District of Columbia:								
Washington.....	2	12	8	-----	0	3	0	6
Virginia:								
Lynchburg.....	0	3	1	-----	0	0	0	0
Norfolk.....	1	2	2	-----	0	1	1	2
Richmond.....	0	20	8	-----	0	2	0	0
Roanoke.....	0	6	0	-----	0	0	0	0
West Virginia:								
Charleston.....	1	1	3	-----	0	0	1	0
Wheeling.....	3	1	0	-----	0	0	0	0
North Carolina:								
Raleigh.....	0	4	1	-----	0	0	0	2
Wilmington.....	0	1	2	-----	0	0	0	0
Winston-Salem.....	1	4	0	-----	0	1	0	1
South Carolina:								
Charleston.....	0	1	1	6	0	0	0	1
Columbia.....	0	1	0	-----	0	0	0	4
Georgia:								
Atlanta.....	0	8	2	13	0	0	1	0
Brunswick.....	0	0	0	-----	0	0	0	0
Savannah.....	0	2	4	4	0	3	2	1
Florida:								
Miami.....	0	2	0	-----	0	0	0	2
St. Petersburg.....	-----	0	-----	-----	0	-----	-----	0
Tampa.....	0	1	0	-----	0	1	0	0

City reports for week ended October 4, 1930—Continued

Division, State, and city	Chicken pox, cases reported	Diphtheria		Influenza		Measles, cases re- ported	Mumps, cases re- ported	Pneu- monia, deaths reported
		Cases, estimated expect- ancy	Cases re- ported	Cases re- ported	Deaths reported			
EAST SOUTH CENTRAL								
Kentucky:								
Covington.....	0	1	0		0	0	0	0
Tennessee:								
Memphis.....	0	6	9		0	0	4	2
Nashville.....	0	3	3		1	0	0	5
Alabama:								
Birmingham.....	1	5	4		1	0	0	7
Mobile.....	0	1	1		0	0	0	2
Montgomery.....	0	3	0	4		0	0	
WEST SOUTH CENTRAL								
Arkansas:								
Fort Smith.....	0	1	1			0	0	
Little Rock.....	2	1	0		0	1	0	6
Louisiana:								
New Orleans.....	0	9	9	2	2	0	0	8
Shreveport.....	0	1	3		0	0	0	0
Oklahoma:								
Tulsa.....	1	4	2			1	0	
Texas:								
Dallas.....	0	14	8		0	0	3	0
Fort Worth.....	0	3	1		0	0	0	2
Galveston.....	0	0	0		0	0	0	1
Houston.....	0	6	7		0	1	0	4
San Antonio.....	0	2	2		1	0	0	1
MOUNTAIN								
Montana:								
Billings.....	0	0	0		0	0	0	2
Great Falls.....		0						
Helena.....	0	0	0		0	0	0	0
Missoula.....	4	0	0		0	0	0	2
Idaho:								
Boise.....	0	0	0		0	0	0	2
Colorado:								
Denver.....	8	10	1		1	0	2	7
Pueblo.....	0	2	0		0	7	1	0
New Mexico:								
Albuquerque.....	0	0	0	1	0	0	0	2
Utah:								
Salt Lake City.....	3	3	0		1	1	3	2
Nevada:								
Reno.....	0	0	0		0	0	0	0
PACIFIC								
Washington:								
Seattle.....	13	4	8			3	16	
Spokane.....		3						
Tacoma.....	0	3	2		0	0	0	1
Oregon:								
Portland.....	5	7	1	1	0	3	1	3
Salem.....	1	0	0		0	1	1	0
California:								
Los Angeles.....	8	29	11	16	0	5	10	11
Sacramento.....	1	2	0	1	1	2	2	2
San Francisco.....	17	14	4	1	0	1	7	2

City reports for week ended October 4, 1930—Continued.

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths re-reported	Typhoid fever			Whoop- ing cough, cases re-reported	Deaths all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re-reported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re-reported		
NEW ENGLAND											
Maine:											
Portland.....	1	4	0	0	0	0	0	1	0	14	13
New Hampshire:											
Concord.....	0	0	0	0	0	0	0	0	0	0	11
Nashua.....	0	0	0	0	0	0	0	0	0	0	-----
Vermont:											
Barre.....	0	0	0	0	0	0	0	0	0	0	3
Burlington.....	0	0	0	0	0	0	0	0	0	0	8
Massachusetts:											
Boston.....	26	10	0	0	0	10	3	1	1	21	174
Fall River.....	2	3	0	0	0	1	1	0	1	1	17
Springfield.....	3	0	0	0	0	2	0	0	0	0	28
Worcester.....	6	11	0	0	0	1	0	0	0	1	43
Rhode Island:											
Pawtucket.....	0	0	0	0	0	0	0	0	0	0	13
Providence.....	3	1	0	0	0	1	1	0	0	9	65
Connecticut:											
Bridgeport.....	3	1	0	0	0	0	0	3	0	0	22
Hartford.....	2	1	0	0	0	4	0	0	0	5	40
New Haven.....	2	2	0	0	0	2	1	0	0	5	37
MIDDLE ATLANTIC											
New York:											
Buffalo.....	10	9	0	0	0	6	2	3	1	24	112
New York.....	47	31	0	0	0	90	30	15	2	107	1,120
Rochester.....	2	9	1	0	0	1	1	1	0	3	54
Syracuse.....	3	3	0	0	0	1	1	0	0	12	41
New Jersey:											
Camden.....	0	2	0	0	0	0	0	0	0	1	24
Newark.....	5	4	0	0	0	5	2	1	0	31	93
Trenton.....	1	7	0	0	0	1	0	1	0	2	35
Pennsylvania:											
Philadelphia.....	32	22	0	0	0	18	11	7	1	16	397
Pittsburgh.....	24	14	0	0	0	6	2	3	0	12	137
Reading.....	1	1	0	0	0	0	0	0	0	0	20
EAST NORTH CENTRAL											
Ohio:											
Cincinnati.....	8	22	1	0	0	7	2	1	0	4	116
Cleveland.....	19	16	0	0	0	12	2	1	0	23	163
Columbus.....	6	4	0	1	0	4	1	1	0	1	62
Toledo.....	7	4	0	0	0	3	1	2	0	0	71
Indiana:											
Fort Wayne.....	0	0	0	0	0	0	0	0	0	0	16
Indianapolis.....	7	6	0	0	0	4	2	0	0	8	-----
South Bend.....	2	1	0	0	0	1	0	0	0	0	21
Terre Haute.....	1	2	0	0	0	1	0	0	1	0	20
Illinois:											
Chicago.....	52	48	0	0	0	45	6	6	0	44	581
Springfield.....	1	0	0	0	0	0	1	0	0	0	24
Michigan:											
Detroit.....	42	30	0	1	0	24	4	2	1	39	264
Flint.....	8	11	0	0	0	1	0	1	0	2	25
Grand Rapids.....	5	7	0	0	0	1	1	1	0	1	20
Wisconsin:											
Kenosha.....	1	9	0	0	0	0	1	0	0	0	4
Madison.....	1	5	0	0	0	0	0	0	0	1	-----
Milwaukee.....	15	5	1	0	0	4	1	1	0	13	98
Racine.....	3	8	0	0	0	1	0	0	0	7	11
Superior.....	2	2	0	0	0	1	1	0	0	0	10
WEST NORTH CENTRAL											
Minnesota:											
Duluth.....	5	0	0	0	0	1	0	0	0	7	21
Minneapolis.....	30	4	1	0	0	2	1	0	0	2	85
St. Paul.....	14	6	1	0	0	3	1	0	0	2	55
Iowa:											
Des Moines.....	4	2	1	0	0	-----	0	0	-----	1	31
Sioux City.....	1	1	0	0	0	-----	0	0	-----	3	1
Waterloo.....	1	1	0	0	0	-----	0	0	-----	0	-----

City reports for week ended October 4, 1930—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber- culosis, deaths reported	Typhoid fever			Whoop- ing cough, cases re- ported	Deaths, all causes
	Cases, esti- mated expect- ancy	Cases re- ported	Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		Cases, esti- mated expect- ancy	Cases re- ported	Deaths re- ported		
WEST NORTH CENTRAL—contd.											
Missouri:											
Kansas City.....	9		0				3				
St. Joseph.....	3	2	0	0	0	1	0	0	0	0	29
St. Louis.....	19	9	0	0	0	10	3	6	0	4	156
North Dakota:											
Fargo.....	2	3	0	0	0	1	0	0	0	3	6
Grand Forks.....	0	0	0	0			0	0		0	
South Dakota:											
Sioux Falls.....	1	1	0	6			0	0		0	7
Nebraska:											
Omaha.....	3	6	0	0	0	1	0	0	0	0	66
Kansas:											
Topeka.....	3	0	0	0	0	1	0	0	0	0	18
Wichita.....	3	1	0	0	0	0	1	0	0	0	22
SOUTH ATLANTIC											
Delaware:											
Wilmington.....	1	0	0	0	0	0	0	0	0	0	24
Maryland:											
Baltimore.....	10	11	0	0	0	13	8	4	1	18	167
Cumberland.....	0	1	0	0	0	0	0	1	0	0	13
Frederick.....	1	0	0	0	0	0	0	0	0	0	1
District of Colum- bia:											
Washington.....	10	4	0	0	0	9	3	4	0	1	113
Virginia:											
Lynchburg.....	1	0	0	0	0	0	1	1	0	0	6
Norfolk.....	1	3	0	0	0	0	0	0	0	0	
Richmond.....	7	3	0	0	0	0	0	1	0	2	34
Roanoke.....	3	0	0	1	0	0	1	0	0	0	20
West Virginia:											
Charleston.....	2	3	0	0	0	0	1	1	1	0	30
Wheeling.....	2	0	0	0	0	1	1	0	0	0	14
North Carolina:											
Raleigh.....	2	0	0	0	0	1	0	0	0	3	7
Wilmington.....	0	2	0	0	0	0	0	0	0	0	8
Winston-Sal- em.....	3	3	0	0	0	1	1	2	1	0	
South Carolina:											
Charleston.....	1	1	0	0	0	1	2	1	0	0	17
Columbia.....	1	1	0	0	0	3	1	0	1	0	29
Georgia:											
Atlanta.....	7	8	1	0	0	4	1	4	3	2	61
Brunswick.....	0	0	0	0	0	0	0	0	0	0	4
Savannah.....	0	0	0	0	0	1	1	2	0	0	21
Florida:											
Miami.....	0	1	0	0	0	2	0	0	0	0	18
St. Petersburg.....	0		0		0	0	0		0		6
Tampa.....	0	1	0	0	0	2	0	0	0	0	18
EAST SOUTH CENTRAL											
Kentucky:											
Covington.....	1	4	0	0	0	3	0	0	0	0	19
Tennessee:											
Memphis.....	4	1	1	0	0	6	3	3	0	9	50
Nashville.....	2	1	0	0	0	2	2	2	0	2	47
Alabama:											
Birmingham.....	6	4	0	0	0	5	2	5	0	1	61
Mobile.....	1	1	0	0	0	1	0	0	0	0	19
Montgomery.....	1	0	0	0			0	0		9	
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith.....	1	3	0	0			0	0		0	
Little Rock.....	1	0	0	0	0	1	0	1	0	0	
Louisiana:											
New Orleans.....	3	2	0	1	0	9	4	11	1	6	134
Shreveport.....	1	0	0	0	0	1	1	0	0	0	19

City reports for week ended October 4, 1930—Continued

Division, State, and city	Meningococcus meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
MIDDLE ATLANTIC									
New York:									
Buffalo.....	1	0	0	0	0	1	1	3	0
New York.....	2	0	1	2	0	0	19	0	1
Rochester.....	1	0	0	0	0	0	1	1	1
Syracuse.....	0	0	0	0	0	0	1	11	1
Pennsylvania:									
Philadelphia.....	1	1	1	1	0	0	1	1	0
Pittsburgh.....	1	0	0	1	0	0	0	1	0
EAST NORTH CENTRAL									
Ohio:									
Cincinnati.....	0	1	0	0	0	0	1	5	1
Cleveland.....	2	1	0	0	0	1	1	26	0
Columbus.....	0	0	0	0	0	0	0	1	0
Toledo.....	0	0	1	0	0	0	1	0	1
Indiana:									
Indianapolis.....	0	0	0	0	0	0	0	1	0
South Bend.....	1	0	0	0	0	0	0	1	1
Terre Haute.....	0	0	0	0	0	0	0	2	0
Illinois:									
Chicago.....	3	2	0	0	0	0	4	8	3
Springfield.....	0	0	0	0	0	0	0	1	0
Michigan:									
Detroit.....	2	1	2	1	0	0	4	4	1
Flint.....	0	1	0	0	0	1	0	0	0
Grand Rapids.....	0	0	0	0	0	0	0	2	0
Wisconsin:									
Kenosha.....	0	0	0	0	0	0	0	2	0
Madison.....	0	0	0	0	0	0	0	1	0
Milwaukee.....	2	2	0	0	0	0	0	6	2
WEST NORTH CENTRAL									
Minnesota:									
Minneapolis.....	3	0	0	0	0	0	0	2	0
Iowa:									
Des Moines.....	1	0	0	0	0	0	0	5	0
Sioux City.....	0	0	0	0	0	0	0	1	1
Waterloo.....	0	0	0	0	0	0	0	1	0
Missouri:									
St. Joseph.....	0	0	0	1	0	0	0	2	0
St. Louis.....	2	1	0	0	0	0	1	1	1
North Dakota:									
Fargo.....	0	0	0	0	0	0	1	1	0
South Dakota:									
Sioux Falls.....	0	0	0	0	0	0	0	1	0
Nebraska:									
Omaha.....	1	0	0	0	0	0	1	3	0
Kansas:									
Topeka.....	0	0	0	0	0	0	1	2	0
Wichita.....	1	1	0	0	0	0	0	2	0
SOUTH ATLANTIC¹									
Maryland:									
Baltimore.....	0	0	0	0	0	0	1	1	0
Virginia:									
Norfolk.....	0	0	0	0	0	0	0	1	0
North Carolina:									
Raleigh.....	0	0	0	0	0	1	0	0	0
Winston-Salem.....	0	0	0	0	1	0	0	0	0
South Carolina:									
Charleston.....	1	0	0	0	1	0	0	0	0
Columbia.....	0	0	0	0	0	1	0	0	0
Florida: ²									
Miami.....	0	0	0	0	1	0	0	0	0

¹ Typhus fever, 11 cases: 1 case at New York City, N. Y.; 1 case at Baltimore, Md.; 8 cases at Savannah, Ga.; and 1 case at Tampa, Fla.² Dengue, 2 cases at Charleston, S. C.

City reports for week ended October 4, 1930—Continued

Division, State, and city	Meningococcus meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths
EAST SOUTH CENTRAL									
Kentucky:									
Covington.....	0	0	0	0	0	0	0	1	0
Tennessee:									
Memphis.....	2	1	0	0	0	0	0	3	0
Alabama:									
Birmingham.....	0	0	0	0	1	0	0	0	0
Mobile.....	0	0	0	0	1	1	0	0	0
WEST SOUTH CENTRAL									
Arkansas:									
Little Rock.....	0	0	0	0	0	3	0	1	0
Louisiana:									
Shreveport.....	0	0	0	0	0	1	0	0	0
Oklahoma:									
Tulsa.....	0	0	0	0	0	0	0	2	0
Texas:									
Dallas.....	0	0	0	0	1	1	0	1	0
Houston.....	0	0	0	0	0	0	0	1	0
MOUNTAIN									
Montana:									
Billings.....	0	1	0	0	0	0	0	0	0
Colorado:									
Denver.....	0	0	0	0	0	0	0	1	1
New Mexico:									
Albuquerque.....	0	0	0	0	1	0	0	1	1
Utah:									
Salt Lake.....	3	0	0	0	0	0	0	0	0
PACIFIC									
Oregon:									
Portland.....	0	0	0	0	0	0	1	2	0
California:									
Los Angeles.....	0	0	0	0	2	0	0	11	0
San Francisco.....	0	0	1	1	1	0	0	21	4

The following table gives the rates per 100,000 population for 98 cities for the 5-week period ended October 4, 1930, compared with those for a like period ended October 5, 1929. The population figures used in computing the rates are approximate estimates, authoritative figures for many of the cities not being available. The 98 cities reporting cases have an estimated aggregate population of more than 32,000,000. The 91 cities reporting deaths have more than 30,500,000 estimated population.

Summary of weekly reports from cities, August 31 to October 4, 1930—Annual rates per 100,000 population, compared with rates for the corresponding period of 1929¹

DIPHTHERIA CASE RATES

	Week ended—									
	Sept. 6, 1930	Sept. 7, 1929	Sept. 13, 1930	Sept. 14, 1929	Sept. 20, 1930	Sept. 21, 1929	Sept. 27, 1930	Sept. 28, 1929	Oct. 4, 1930	Oct. 5, 1929
98 cities.....	41	² 64	45	66	47	75	58	83	² 62	97
New England.....	35	² 43	55	47	31	49	51	76	49	88
Middle Atlantic.....	31	45	28	41	38	54	33	60	43	62
East North Central.....	49	85	64	95	75	95	75	90	80	124
West North Central.....	34	38	55	58	47	64	57	100	⁴ 62	108
South Atlantic.....	00	92	62	133	42	114	92	112	62	129
East South Central.....	54	75	27	116	27	137	34	137	115	157
West South Central.....	00	133	49	61	67	149	146	164	112	193
Mountain.....	43	70	34	26	26	70	60	23	³ 9	26
Pacific.....	38	54	23	22	14	19	31	65	⁶ 62	56

MEASLES CASE RATES

	24	² 12	16	16	15	15	18	13	³ 19	16
98 cities.....	24	² 12	16	16	15	15	18	13	³ 19	16
New England.....	33	² 21	38	13	18	31	42	18	33	34
Middle Atlantic.....	28	7	20	12	17	7	13	10	12	12
East North Central.....	13	16	9	20	14	17	13	13	5	12
West North Central.....	30	2	15	6	19	6	28	10	⁴ 73	10
South Atlantic.....	26	2	5	7	20	7	9	13	20	11
East South Central.....	27	14	7	7	0	7	74	0	0	0
West South Central.....	0	4	4	11	0	8	11	11	7	0
Mountain.....	51	26	34	61	43	26	26	44	⁵ 73	35
Pacific.....	40	45	19	39	21	51	19	24	⁶ 27	65

SCARLET FEVER CASE RATES

	43	² 52	51	54	62	68	72	95	³ 74	102
98 cities.....	43	² 52	51	54	62	68	72	95	³ 74	102
New England.....	55	² 83	51	52	71	49	80	99	73	135
Middle Atlantic.....	25	25	27	16	47	25	33	42	49	48
East North Central.....	47	70	85	90	91	121	118	161	107	149
West North Central.....	57	67	34	58	44	92	76	108	⁴ 73	119
South Atlantic.....	66	64	51	47	40	66	57	105	70	120
East South Central.....	67	41	40	96	40	28	128	75	74	82
West South Central.....	67	34	26	91	56	72	56	72	37	72
Mountain.....	34	17	77	70	69	113	94	139	⁵ 118	131
Pacific.....	33	77	73	72	78	68	87	84	⁶ 89	123

SMALLPOX CASE RATES

	3	² 4	3	3	5	5	3	4	³ 1	7
98 cities.....	3	² 4	3	3	5	5	3	4	³ 1	7
New England.....	0	² 0	0	0	0	0	0	0	0	0
Middle Atlantic.....	0	0	0	0	0	0	0	0	0	0
East North Central.....	3	10	2	4	9	10	3	3	1	7
West North Central.....	13	2	27	8	21	6	13	8	⁴ 0	2
South Atlantic.....	4	0	0	2	0	0	0	0	2	0
East South Central.....	0	0	0	0	0	0	0	0	0	48
West South Central.....	0	0	0	0	0	0	4	0	4	0
Mountain.....	0	9	0	9	0	52	0	96	⁵ 0	52
Pacific.....	14	14	9	12	5	17	19	10	⁶ 2	36

¹ The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimates as of July 1, 1930 and 1929, respectively.

² Pawtucket, R. I., not included.

³ Kansas City, Mo., Great Falls, Mont., and Spokane, Wash., not included.

⁴ Kansas City, Mo., not included.

⁵ Great Falls, Mont., not included.

⁶ Spokane, Wash., not included.

Summary of weekly reports from cities, August 31 to October 4, 1930—Annual rates per 100,000 population, compared with rates for the corresponding period of 1929—Continued

TYPHOID FEVER CASE RATES

	Week ended—									
	Sept. 6, 1930	Sept. 7, 1929	Sept. 13, 1930	Sept. 14, 1929	Sept. 20, 1930	Sept. 21, 1929	Sept. 27, 1930	Sept. 28, 1929	Oct. 4, 1930	Oct. 5, 1929
98 cities.....	21	² 18	27	21	22	22	18	20	² 20	16
New England.....	11	² 2	20	16	11	13	11	7	11	11
Middle Atlantic.....	22	20	25	18	16	14	14	12	15	14
East North Central.....	12	13	17	10	11	11	9	9	9	12
West North Central.....	13	12	21	17	28	6	15	23	⁴ 13	15
South Atlantic.....	53	34	64	34	62	26	51	17	38	30
East South Central.....	54	55	54	89	54	0	29	82	67	21
West South Central.....	49	15	56	50	67	84	37	27	56	8
Mountain.....	9	44	60	70	0	340	43	313	¹ 118	113
Pacific.....	9	14	5	19	17	7	14	10	⁶ 20	10

INFLUENZA DEATH RATES

	3	² 3	3	3	3	2	3	5	² 3	6
91 cities.....	0	² 2	0	0	2	2	2	2	0	4
New England.....	0	² 2	0	0	2	2	2	2	0	4
Middle Atlantic.....	3	2	4	2	2	0	2	5	2	7
East North Central.....	2	6	3	2	3	2	2	4	1	5
West North Central.....	6	0	0	6	0	6	0	3	⁴ 0	6
South Atlantic.....	7	4	2	2	0	2	4	6	2	7
East South Central.....	0	7	22	7	29	7	15	0	15	0
West South Central.....	11	0	0	12	8	0	4	12	11	16
Mountain.....	9	0	0	9	17	9	0	17	¹ 18	0
Pacific.....	0	3	0	0	0	9	6	3	3	9

PNEUMONIA DEATH RATES

	55	² 57	55	55	58	54	58	67	² 60	77
91 cities.....	51	² 44	62	36	51	29	35	72	40	36
New England.....	51	² 44	62	36	51	29	35	72	40	36
Middle Atlantic.....	68	75	67	66	68	59	76	72	63	93
East North Central.....	36	44	43	47	43	47	48	54	54	61
West North Central.....	50	57	44	45	74	39	35	81	⁴ 81	108
South Atlantic.....	62	64	53	52	51	66	51	60	48	81
East South Central.....	103	75	29	90	81	67	74	119	118	30
West South Central.....	54	31	61	55	50	51	77	94	77	113
Mountain.....	51	52	120	70	112	104	51	70	¹ 137	87
Pacific.....	34	31	31	41	49	57	49	38	49	47

² Pawtucket, R. I., not included.

³ Kansas City, Mo., Great Falls, Mont., and Spokane, Wash., not included.

⁴ Kansas City, Mo., not included.

⁵ Great Falls, Mont., not included.

⁶ Spokane, Wash., not included.

⁷ Kansas City, Mo., and Great Falls, Mont., not included.

FOREIGN AND INSULAR

CANADA

Provinces—Communicable diseases—Week ended September 27, 1930.—The Department of Pensions and National Health of Canada reports cases of certain communicable diseases for the week ended September 27, 1930, as follows:

Province	Cerebro-spinal fever	Dysentery	Influenza	Lethargic encephalitis	Polio-myelitis	Small-pox	Typhoid fever
Prince Edward Island ¹							2
Nova Scotia					4		13
New Brunswick							39
Quebec	1						47
Ontario	1		9		53	1	7
Manitoba	1			2	4		6
Saskatchewan							19
Alberta					5		4
British Columbia	2	1			3	1	
Total	5	1	9	2	69	2	137

¹ No case of any disease included in the table was reported during the week.

Quebec Province—Communicable diseases—Week ended October 4, 1930.—The Bureau of Health of the Province of Quebec, Canada, reports cases of certain communicable diseases for the week ended October 4, 1930, as follows:

Disease	Cases	Disease	Cases
Chicken pox	16	Poliomyelitis	3
Diphtheria	39	Puerperal fever	1
Erysipelas	2	Scarlet fever	50
German measles	4	Smallpox	1
Influenza	1	Tuberculosis (pulmonary)	3
Measles	55	Tuberculosis (other forms)	39
Mumps	29	Typhoid fever	20
Paratyphoid fever	2	Whooping cough	30

CUBA

Habana—Communicable diseases—September, 1930.—During the month of September, 1930, cases of certain communicable diseases were reported in Habana, Cuba, as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Chicken pox	4		Scarlet fever	4	
Diphtheria	13	1	Tuberculosis	54	29
Malaria ¹	9		Typhoid fever ¹	28	4
Measles	4				

¹ Many of these cases are from the island of Cuba outside of Habana.

Provinces—Communicable diseases—Four weeks ended September 27, 1930.—During the four weeks ended September 27, 1930, cases of certain communicable diseases were reported in the Provinces of Cuba as follows:

Disease	Pinar del Rio	Habana	Matanzas	Santa Clara	Camaguey	Oriente	Total
Cancer		11	2	3	1	1	18
Chicken pox		5	1	1			7
Diphtheria	2	17	5	4	2	1	31
Malaria	10	9	1		7	29	56
Measles		3					3
Paratyphoid fever		1	1	2	1	4	9
Scarlet fever		4	1				5
Tetanus (infantile)				1			1
Typhoid fever	8	51	11	35	5	14	124

JAMAICA

Communicable diseases—Four weeks ended September 13, 1930.—During the four weeks ended September 13, 1930, cases of certain communicable diseases were reported in Kingston, Jamaica, and in the island of Jamaica, outside of Kingston, as follows:

Disease	Cases		Disease	Cases	
	Kingston	Other localities		Kingston	Other localities
Cerebrospinal meningitis	1	3	Lethargic encephalitis		1
Chicken pox	1	23	Puerperal septicemia		3
Dysentery	1	16	Tuberculosis	42	81
Leprosy	2	3	Typhoid fever	13	78

MEXICO

Tampico—Communicable diseases—September, 1930.—During the month of September, 1930, certain communicable diseases were reported in Tampico, Mexico, as follows:

Disease	Cases	Deaths	Disease	Cases	Deaths
Enteritis (various)		36	Tuberculosis	69	19
Influenza	1		Typhoid fever	1	2
Malaria	140	13	Whooping cough	13	
Measles	2				

PANAMA CANAL ZONE

Communicable diseases—July–August, 1930.—During the months of July and August, 1930, certain communicable diseases, including imported cases, were reported in the Panama Canal Zone and terminal cities as follows:

Disease	July, 1930		August, 1930	
	Cases	Deaths	Cases	Deaths
Cerebrospinal meningitis.....	1	1	1	1
Chicken pox.....	27	1	10	.....
Diphtheria.....	27	.....	35	.....
Dysentery (amebic).....	2	1	7	.....
Dysentery (bacillary).....	.....	.....	6	.....
Leprosy.....	.....	1	.....	.....
Malaria.....	464	7	171	4
Measles.....	16	.....	11	.....
Mumps.....	4	.....	.....	.....
Pneumonia.....	.....	30	.....	26
Scarlet fever.....	1	.....	.....	.....
Tuberculosis.....	.....	25	.....	14
Typhoid fever.....	2	.....	3	2
Whooping cough.....	12	.....	17	.....

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

From medical officers of the Public Health Service, American consuls, International Office of Public Hygiene, Pan American Sanitary Bureau, health section of the League of Nations, and other sources. The reports contained in the following tables must not be considered as complete or final as regards either the list of countries included or the figures for the particular countries for which reports are given.

CHOLERA

[C indicates cases; D, deaths; P, present]

Place	Apr. 6- May 3, 1930	May 4-31, 1930	June 1-28, 1930	Week ended—												September, 1930				October, 1930																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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¹ An outbreak of cholera was reported in June, 1930, in Afghanistan.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

CHOLERA—Continued

(C indicates cases; D, deaths; P, present)

[illegible]

Place	Febru- ary, 1930	March, 1930	April, 1930	May, 1930	June, 1930			July, 1930			August, 1930			Sept. 1- 10, 1930
					1-10	11-20	21-30	1-10	11-20	21-31	1-10	11-20	21-31	
Pangasinan.....			2	1	1									
Rizal.....		1		1										
Samar.....								5	3	10	2	1	4	
Surigao.....								15	2	11	1	4		
Tarlac.....								9	2	6	2		(9)	
Siam.....	20	33	8	3	1	1	1	9	2	6				
Bangkok.....	13	21	4	1	3	1	1	1						
Nagara Pathom.....	15	9	3	3	4	1	1	1						
Songkla.....	4	3	5	1	1	1	1							
On vessel:				8										
S. S. Malwa from Shanghai.....				4	2									
S. S. Sassari at Massoue, from Jeddah.....												1		
On small boat at Port Cebu, from Ban- tayan Island.....	1	1												
Indo-China (French) (see also table above):														
Annam.....	4	52	60	23	2	14							3	23
Cambodia.....	90	81	24	88	56	88							22	9
Cochin-China.....	65	82	48	671	147	126							5	

: Figures for cholera in the Philippine Islands are subject to correction.

: During the period from August 24 to September 26, 1930, 26 cases of cholera with 17 deaths were reported in Manitung, Surigao Province, Philippine Islands.

* Reports incomplete.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER--Continued

PLAGUE

[C indicates cases; D, deaths; P, present]

Place	Apr. 6- May 3, 1930	May 4-31, 1930	June 1-28, 1930	Week ended—																
				July, 1930					August, 1930					September, 1930					October, 1930	
				5	12	19	26	2	9	16	23	30	6	13	20	27	4	11		
Algeria:.....																				
Algiers:.....			1			1	2			1		6	1	2	6	2	1	1		
Constantine.....																				
Oran.....						2	1	1	1	1	1	1	1	2	3	4	1			
Philippeville.....																				
Azores: Ponta Delgada.....	8																			
Belgian Congo.....	5																			
British East Africa (see also table below):																				
Tanganyika.....	44																			
Uganda.....	20		406		50	100	78	52	67											
Canary Islands: Las Palmas.....	117	227	328		47	97	69	50	64											
Ceylon:.....	105	195						1												
Colombo.....	1	6	1	1	2					1	1	2					1	1		
Plague-infected rats.....	1	5	1	1	2					1	1	3								
Chile: Antofagasta.....	4		1																	
China: Manchuria—Tungliou and Nungan.....	1																			
Dutch East Indies:.....																				
Batavia and West Java.....	87	82	98	19	25	18	22	19	30	20	14	13								
Plague-infected rats.....	81	82	98	19	25	18	22	19	30	20	14	12								
Java and Madura.....	8	5	4						1					1	1					
Ecuador (see table below):.....	173	185	202	55	56	58	48	45	51	47	45	55								
Egypt:.....																				
Alexandria.....	2	13	19	8	8	3	4	2	2	4	3	3	3	3	2	2	3	1		
Assiout.....	2	3	9	2	3	2	3	2	1	3		5	1	2						
Bent-Suef.....	14	20	9	1	1															
	6	5	3	1	1															

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Place	March, 1930	April, 1930	May, 1930	June, 1930	July, 1930	August, 1930	Place	March, 1930	April, 1930	May, 1930	June, 1930	July, 1930	August, 1930
British East Africa (see also table above):							Madagascar (see also table above)—Con.						
Kenya.....	85	16	171	107	97	27	Moromanga Province.....	5	3	1	3		
Ecuador: Guayaquil.....	2	0	0	0	0		Tananarivo Province.....	5	3		3		
Plague-infected rats.....	0	0	0	0			Senegal:	52	39	15	16	11	
Greece (see also table above):	2	1	0	0			Baol ¹	52	38	14	10	11	
Indo-China (see also table above):							Dakar ¹	18	24	13	2	62	79
Madagascar (see also table above):	27	4		11	1	2	Louga ¹	8	12	11	2	48	20
Ambohitra Province.....	25	14	1				Thies ¹		2	52	53	140	108
Antsirabe Province.....	20	12	1				Tivaouane ¹		2	42	117	122	90
Italy Province.....	38	46	19	3	8				33	54	60	138	75
Miarinarivo Province.....	26	45	19	3	8				10	27	21	103	33
	4								12	21	8	54	34
	4								3	9	35	39	20
	14	1	5	1	1				2	135	43	119	110
	14	1	5	1	1				71	69	28	70	54

¹ Incomplete reports.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

SMALLPOX

[C indicates cases; D, deaths; P, present]

[illegible]

¹ From Jan. 1 to May 31, 1930, 44 deaths from smallpox were reported in La Paz, Bolivia.

¹ From Jan. 1 to May 31, 1930, 44 deaths from smallpox were reported in La Paz, Bolivia.
² 5 cases of smallpox were reported Apr. 14, 1930, in Costa Rica, outside of city of San Jose.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

SMALLPOX—Continued

[C indicates cases; D, deaths; P, present]

[illegible]

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

SMALLPOX—Continued

[C indicates cases; D, deaths; F, present]

Place	February, 1930			March, 1930			April, 1930			May, 1930			June, 1930			July, 1930			August, 1930			Sept. 1-10, 1930
	1-10	11-20	21-31	1-10	11-20	21-31	1-10	11-20	21-31	1-10	11-20	21-31	1-10	11-20	21-31	1-10	11-20	21-31	1-10	11-20	21-31	
Indo-China (see also table above).....	C			434	26	291	305	80	133			238	59	34								54
Ivory Coast.....	C			213	7	521	274	75	49			34										
Sudan (French).....	C			11	49	36	32	18														3
Syria: Beirut.....	C			18	17	19	7	6	1			2	1									
Taiwan: Tainan.....	C			43	58	12																
Place	February, 1930	March, 1930	April, 1930	May, 1930	June, 1930	July, 1930	Place	February, 1930	March, 1930	April, 1930	May, 1930	June, 1930	July, 1930									
British East Africa (see also table above):							France.....	23	8	58	51											
Kenya.....	12	175	174	171	142	156	Mexico: Durango (see also table above).....	6	5	4	4	3	3									
Uganda.....	109			69			Morocco.....	74	17	10	18	6	3									
Chosen.....	263	226	233	107		3	Turkey.....	114		3	16											
	71	53	53	35	2	2		42														
Seishin.....	4	6	1	1	1	2																

TYPHUS FEVER

[C indicates cases; D, deaths; V, present]

Place	Mar. 9- Apr. 5, 1930	Apr. 6- May 3, 1930	May 4-31, 1930	June 1-28, 1930	Week ended—										Oct. 4, 1930
					July, 1930					August, 1930					September, 1930
					5	12	19	25	2	9	16	23	30	6	
Algeria:															
Algiers.....	C	6	8	3		1	2	3				2		3	
Constantine Department.....	C	11	15	12		1	1					3			
Oran.....	C		6	6		2	1					1			
Arabia. Aden.....	D	1		4						1					
Bolivia: La Paz.....	C														
Brazil: Porto Alegre.....	C			1											
Bulgaria.....	D	9	15	10		4	5	1		1				2	
China:															
Manchuria—Harbin (see also table below).....	C	4	53	8	2				2	1			2		
Shanghai.....	C	1													
Chosen (see table below).....															
Czechoslovakia (see table below).....															
Egypt:															
Alexandria.....	C		1	2	1	5	1	9			1			1	1
Behetra Province.....	D	2	2	45		1		1	2						
Cairo.....	C			4											
Port Said.....	C														
Great Britain: Scotland—	C														
Dunfermline.....	C													1	
Glasgow.....	D					1									
Greece (see table below).....															
Iraq: Baghdad.....	C	2													
Ireland:															
Irish Free State—	C														
Galway County—Oughterard.....	C														
Kerry County—Dingle.....	C														
Lettin County—Mohill.....	C		5					2							
	C			9				1							

12 deaths from typhus fever were reported in La Paz, Bolivia, from Jan. 1 to May 31, 1930.

Place	Febru- ary, 1930	March, 1930	April, 1930	May, 1930	June, 1930	July, 1930	Place	Febru- ary, 1930	March, 1930	April, 1930	May, 1930	June, 1930	July, 1930
China: Harbin (see also table above).....		37	204	240		14	Lithuania.....	70	62	73	27	16	3
Chosen: Seoul.....	17		3	43		3	Turkey.....	5	4	4			
Czechoslovakia.....	2	42	29	12	2		Yugoslavia.....	33	1	3	16	2	
Greece: Athens.....	6	3	1	3	3	6		5	46	22	1	6	
Latvia.....				3	3	3			2	4			

YELLOW FEVER

Brazil:

Mace, on the Leopoldina Ry., between Rio de Janeiro and Niteroy, Apr. 22, 1930.
 Campos, Rio de Janeiro Provinces, May 23, 1930.
 Para, June 23, 1930.

Gold Coast:

July 10, 1930.
 Alibosso, Aug. 5, 1930 (deaths).
 Liberia, Monrovia, June 3, 1930.
 Nigeria, Lagos, July 12, 1930 (probably laboratory infection).

Cases	Cases
2	
1	
2	

X